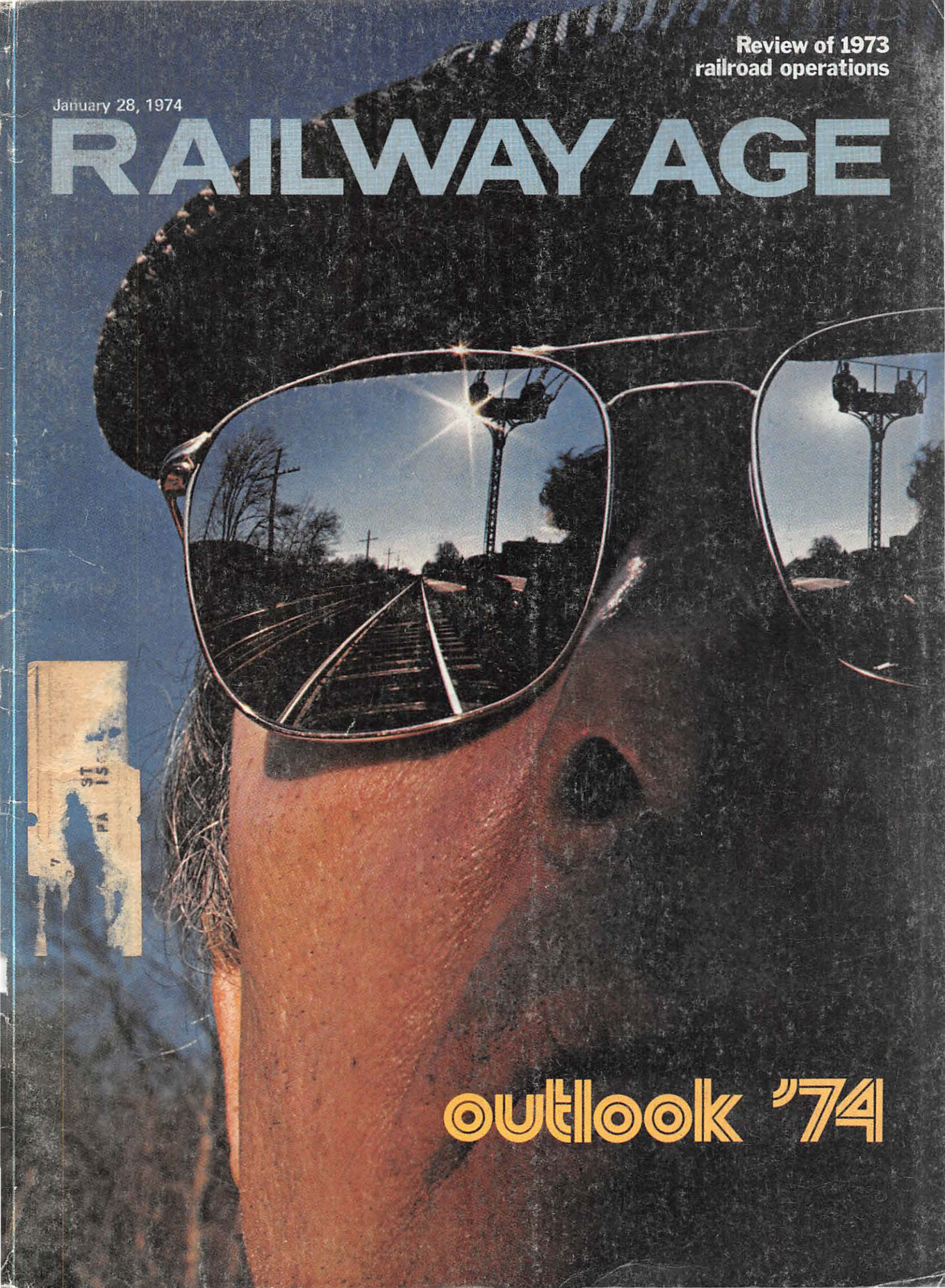
Review of 1973
railroad operations

January 28, 1974

RAILWAY AGE



outlook '74

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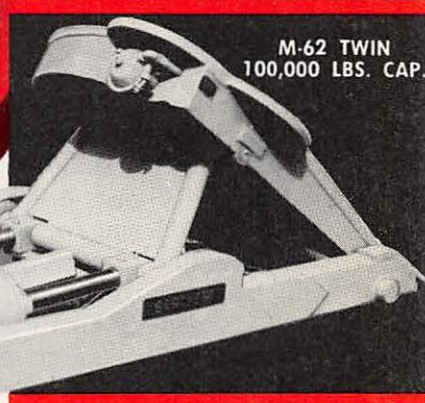
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Inside

LUTHER S. MILLER

A YEAR OF SHORTAGES

A few weeks ago a Brazilian equipment broker came to the United States with a long railroad shopping list, topped by various types of freight cars urgently needed to help implement Brazil's multi-billion-dollar railway expansion program. He went back to Rio de Janeiro a sadder and wiser man, his list largely unfilled. "I couldn't find anything—not the cars, nor the steel to build them," he said. At about the same time another middleman quietly put out the word that the group he represented wanted to "buy a railroad—a whole railroad, roadbed and rolling stock." Not to operate—but to disassemble and ship abroad. He found no immediate sellers.

Most U.S. railway suppliers right now have good reason to be giving the polite brushoff to all but their steadiest customers. The equipment marketplace is active as it has not been in many years. The problem is not alone soaring demand—though it is there: commercial carbuilders who months ago were quoting prices with little or no profit margin, just to keep their lines open, now have the fattest backlogs in their history—but a worsening shortage of the materials needed to fill this demand. Carbuilders have the capability of building around 77,500 new freight cars this year, without substantial plant expansion; but a recent survey by the Railway Progress Institute indicated that they will find the materials to produce only 62,500.

Shortages are not confined to the rolling stock department. They are to be found almost everywhere; they are especially severe in the M/W field.

The most troublesome shortage of all, of course, has been created by the energy pinch. All forecasts call for a continuing rise in demand for railroad freight service. Railroads have responded by raising the levels of programmed capital expenditures. Just a few days ago the Southern increased its 1974 capital program to an all-time high of $165 million of which nearly $100 million is earmarked for rolling stock.

But all forecasts do not call for an adequate supply of fuel to meet the demand for freight service. DOT Secretary Claude S. Brinegar, in an interview with Railway Age which is published in this issue, pledges to help any carrier fight its way out of a real fuel emergency; but there will be many carriers in the line at Mr. Brinegar's office, and, as he points out, the most generous "allocation" of fuel is meaningless if the oil companies can't supply it.

BUT, ON BALANCE, A VERY GOOD YEAR

These are, though, the problems of boom, not bust, and on the whole the railroad picture at the outset of 1974 is as bright and bullish as it has been in memory. The wave of optimism that is sweeping the industry is not entirely attributable to business levels. It springs from the deeper well of confidence that the nation has awakened, at last, to the realization that it cannot get along without strong and healthy railroads—and that what must be done to make and keep them that way will be done.

RAILWAY AGE

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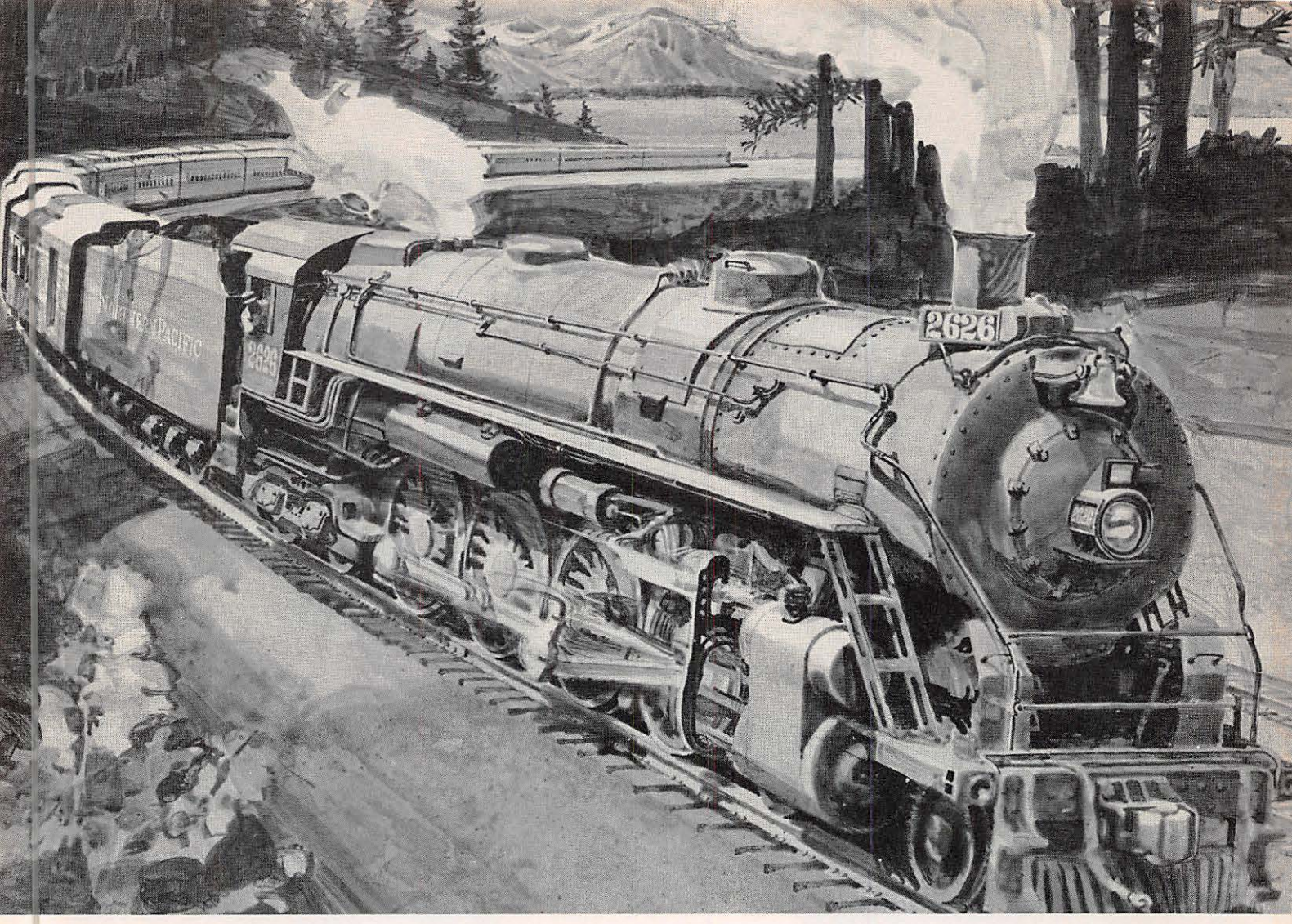

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RAILWAY AGE

JANUARY 28, 1974

FEATURES

This issue's cover was conceived and photographed by Richard Wolters, a consultant in communications who formerly was illustrations editor of Business Week and the first picture editor of Sports Illustrated. The picture was taken on Erie Lackawanna tracks at Ridgewood, N.J.

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Short and Significant

ICC SLATES NORTHEAST HEARINGS

ICC Chairman George M. Stafford says public hearings will be held early in March on areas to be served by the new Consolidated Rail Corp. Under the recently-enacted Regional Rail Reorganization Act of 1973, which will ultimately trim about 10,000 miles of line from the 30,000 now operated by the Northeast bankrupts, the DOT Secretary will make available by Feb. 1 a report containing DOT's recommendations with respect to the geographic zones in which service will be provided. Following issuance of that report, the ICC's new Rail Services Planning Office will hold hearings to give the public in general, as well as railroad customers, the chance to have their say. The ICC's report on the hearings is due May 1.

HARTKE WANTS DEEPER FUEL-HOARDING PROBE

The announcement by William Simon, director of the Federal Energy Administration, that he was telegraphing truck and rail companies about alleged fuel-oil hoarding practices brought a sharp reply from Senator Vance Hartke (D.-Ind.), chairman of the Senate Surface Transportation Subcommittee. "To send telegrams to all truck companies and railroads as Simon has done, is to raise a smoke-screen over the real corporate scandal of the energy crisis," said Hartke. He said Simon should start with "the oil companies themselves," declaring: "Most of the surface transportaton carriers I have looked at have a hard time sustaining 30-day supplies. The oil companies have backed up their lines and services, tanks and substorage storage facilities to take further advantages of the energy hardships worked on the vast majority of the American people."

SOUTHERN PLANS RECORD SPENDING

Southern is the latest railroad to revise its capital program for '74—and it's an upward revision. On Jan. 15 Southern announced that it had authorized the largest capital investment program in its history—more than $176 million, of which about $165 million will be spent in 1974, compared to the record $162.5 million actually spent in 1973. Almost $100 million will go for new diesels, freight cars and rail-highway equipment.

CANADA THREATENS SPEED, LOAD LIMITS

The Canadian Transport Commission has threatened to impose speed and rail-load limits on freight trains "unless improved programs and standards of maintenance are immediately undertaken." Canada's railroads must give top priority to prevention of derailments caused by track defects, said CTC, noting that train accidents have gone up "steadily" since 1969. The immediate solution, it was noted, could be "to eliminate the overstressing of the existing track structure" through speed and load reductions.

CTA SEEKS ADDED GRANTS

The Chicago Transit Authority is asking for an additional $10 million in grants ($8 million Federal, $2 million state) in connection with its pending purchase of 100 new rapid transit cars. Since 1971, CTA has been working on a $140-million Federal and state program, and the $10 million would be added to that. The big reason for the new request: in '71, CTA estimated the cost of 100 cars at about $20 million but when bids were opened in December Boeing Vertol was low at $29,321,300.

AMTRAK WINS SUPREME COURT RULING

The Supreme Court on Jan. 9 reversed a Court of Appeals ruling which had upheld the right of the National Association of Railroad Passengers to sue Amtrak over train abandonments. By a 7 to 1 vote, the Supreme Court ruled that under the law which created Amtrak, the corporation could be sued only by the Attorney General of the U.S. or by an employee seeking redress in a labor dispute. Noting that the law which created Amtrak authorized discontinuance of passenger trains without the permission of Federal or state regulators, the Court ruled that private lawsuits could not be permitted to block such discontinuances.

TANK CAR PRODUCTION UPPED TO 60 A WEEK

Union Tank Car Co. has subcontracted out a $6.5-million order for 180 LASH barges to Equitable Equipment Co., of New Orleans, so that more production space at the firm's East Chicago, Ind., plant can be opened up to tank car manufacturing. "Orders for new tank cars are at an all-time high," explains Jack R. Kruizenga, Union Tank's president, "and we need the production space to enable us to keep up with the demand." About two years ago, when the tank car market was severely depressed, Union Tank entered into a contract with Central Gulf Lines (which, like Union Tank, is an affiliate of Trans Union Corp.) for the construction of 440-LASH—Lighter Aboard Ship—barges at the East Chicago facility. The 180 barges subcontracted to Equitable Equipment Co., a subsidiary of Trinity Industries Inc., represent the final portion of the original contract. "With the barge work subcontracted out," continued Kruizenga, "we will soon be building tank cars at a rate of 60 per week."

DOUBLE YOUR CAR PROTECTION WITH THE DOUBLE CAPACITY GEAR

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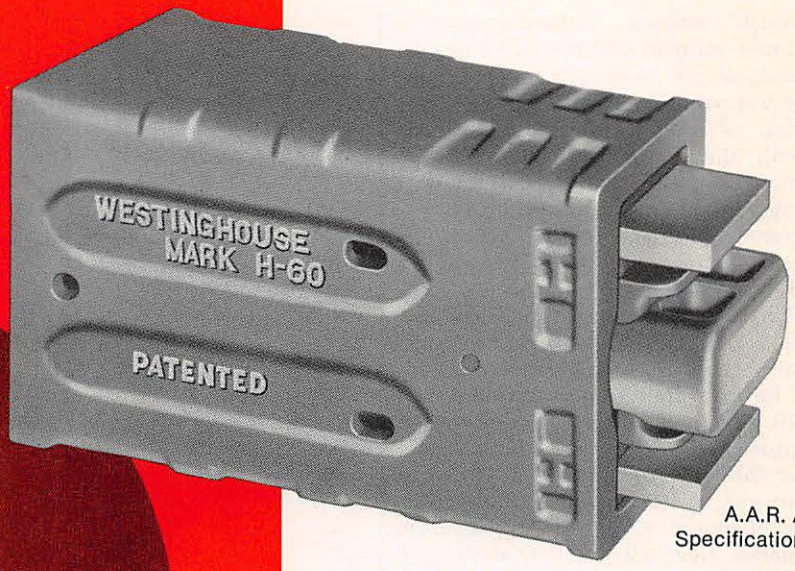

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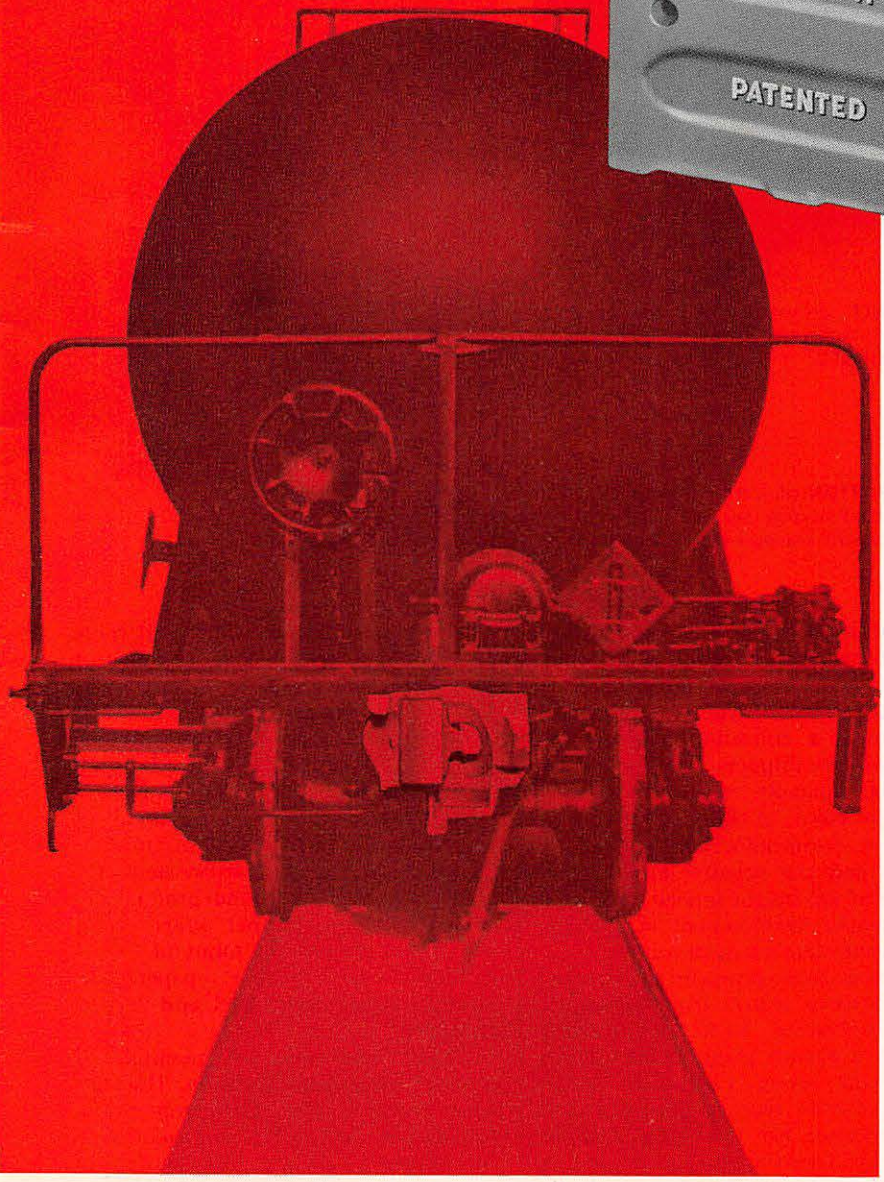

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RPI

Vermont: Small investment, big return

Through western Vermont runs a 131-mile railroad which could well be a prototype for some of the operations that will probably result from a restructuring of the Northeast. Early this month the Vermont Railway (VTR) marked the 10th anniversary of the start of operation over a major portion of the abandoned Rutland Railway which had been acquired by the State of Vermont and leased for private operation.

What Vermont has done—and how well Vermont has done it—are of particular interest at this juncture, because the Regional Rail Reorganization Act of 1973 and the pending Transportation Improvement Act of 1974 both should clear the way for substantial line abandonments, at least by present operators. The Regional [Northeast] legislation promises that when the Consolidated Rail Corp. comes into being about two years from now, as much as 10,000 miles of line could be rated as ineligible for inclusion in its for-profit core system.

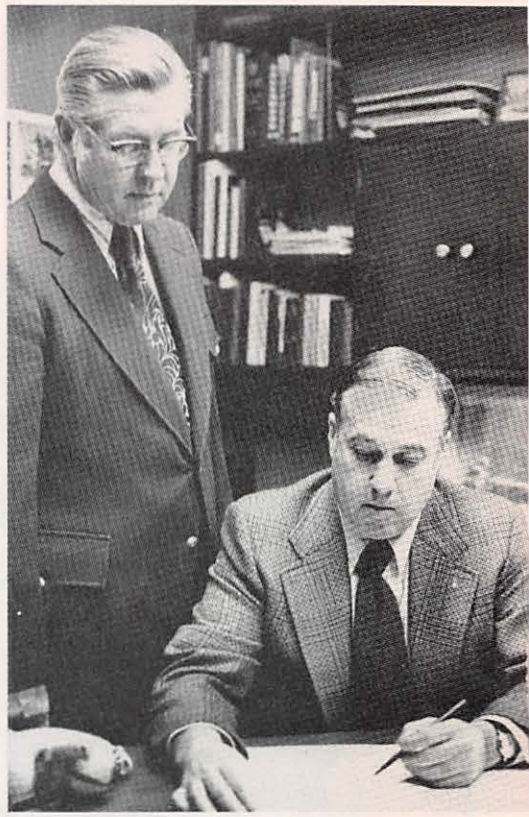
But there is provision in the Northeast bill for continued operation of at least some of these unwanted lines—either through operating subsidy, of which the Federal government will pay up to 70%, or through acquisition and modernization by state, local or regional authorities, again with Federal aid. For these purposes a total of $180 million in Federal money over a two-year period is authorized.

All this is a far cry from the $1.8 million, the net salvage value, which the State of Vermont had to put up all by itself in the fall of 1963 to acquire the weed-grown Rutland line that had been shut down 27 months by labor disputes.

Late in 1963 authority was received from ICC authorizing the resumption of service as requested by the State and the newly organized Vermont Railway. When operations began on Jan. 6, 1964, almost 100 freight cars were backed up at interchanges awaiting delivery to customers on the new line.

During the first year, VTR's gross income was $538,000 and the road paid the State $37,700 as rental (7% of its gross). In 1973 revenues were about $1.5 million and the State is receiving approximately $130,000, more than covering the interest and amortization of the State investment in railroad property. Right now the initial 10-year lease is being renegotiated.

NEW UNIT, delivered a year ago, has been consistent performer and is to be joined by another GP38-2.



RESTORATION of Vermont rail service was directed by President Jay Wulfson (right) and VP and General Manager Harold Filskov.

In addition to the State's return on its investment, there are benefits which far outweigh any rental income. In 1962, with the old Rutland completely shut down, a consultant's report had shown on-line shippers were paying out $700,000 annually in increased transportation costs. A drain like this on many of Vermont's hard-pressed industries and the negative effect which absence of rail freight service was having on industrial development in the area sparked the state's acquisition.

VTR has been successful in attracting new industries, almost from the time it started operating. Right now Kraft is building a cheese plant in Middlebury which will assure Champlain Valley farmers a milk market during seasons when demand for raw milk declines. During 1973 two major plants went up on the line: Georgia Pacific's warehouse at Shelburne where ten cars can be unloaded simultaneously and Martin Lumber just south of Rutland. The two major sources of outbound traffic, Vermont Marble and White Pigment Corp., are expanding their plants which produce ground limestone. Mini-unit trains of stone are operated in conjunction with the Delaware & Hudson through Rutland "at rates considerably lower than any other form of transportation."

Over 10% of VTR's traffic is piggyback, and the road's trailer fleet is among the largest in the nation. Both piggyback and carload traffic are looking up as the energy crisis worsens. The road's principal outbound products include limestone, lumber, maple syrup and paper products. Inbound traffic includes coal, lumber, paper, oil, plastics, sugar, dairy feed and grocery products.

Track and roadbed maintenance come in for special attention. The state lease requires that the property be maintained, and VTR management is determined to do just that. During the past three years more than 60,000 ties have been installed and, if they are obtainable, 30,000 more will go in this year. Some 25,000 tons of crushed-stone ballast have been put in. The road has an Electromatic Tamper for major resurfacing projects and three other

tampers for smaller surfacing jobs.

The two Railway Track-Work tie handlers have eliminated a great deal of labor. On this year's budget is an automatic track liner. Considerable bridge work has been performed in the past two years, including replacement of one major span and reinforcement of another to permit movement of heavier cars and allow faster train speeds.

VTR's speed limit is 40 mph and President Jay L. Wulfson rates the roadway "excellently maintained for our type of service and well above the minimum standards prescribed by the Federal government."

There is a policy of spraying the entire right-of-way with weed-control chemicals annually and a Tamper Kaltrac brush cutter is also used consistently. Says Wulfson: "Our track is being maintained to be in excellent condition in the long term. Railroads in poor financial shape let their roadbed deteriorate because it is an easy place to save money temporarily. A policy of deferred maintenance leads to lower train speeds, derailments and slow, undependable service."

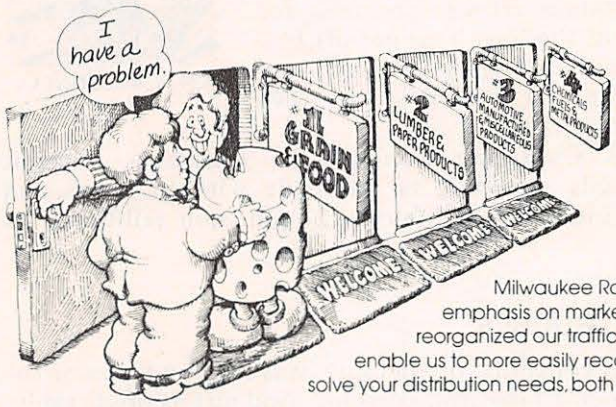
While 300-plus box cars wear VTR's stylized Green Mountain emblem, and inbound loads are three times as high as outbound, car supply does at times become a problem. The road is looking at the possibility of stretching each of its present cars into a 50 footer and expects that 150 more box cars might be obtained in the next 18 months.

Last year a new 2,000-hp GP38-2 was added to the motive power roster and a similar unit will be delivered late this year. Wulfson notes that the first unit operated for its entire first year without a single road failure. A new 1,500-hp SW1500 went into service in 1966 and these units are backed up by five aging Alcos.

All VTR dispatching is performed by a Motorola radio system with complete coverage achieved by a repeater installation atop Killinton Mountain. Much of the road's accounting is computerized and a third-generation installation is to be on line during April 1974 when VTR managers will be getting current information on a daily basis.

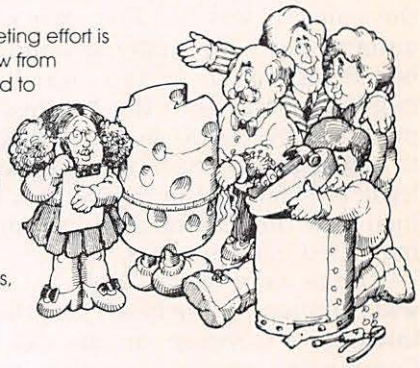
VTR connects with the Central Vermont at Burlington; Delaware & Hudson, Green Mountain and Clarendon & Pittsford at Rutland; and Boston & Maine at North Bennington.

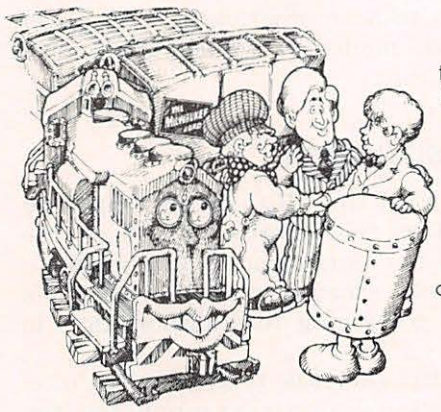
Marketing for 2-way profits



As part of the Milwaukee Road's increased emphasis on marketing, we recently reorganized our traffic department to enable us to more easily recognize, identify, and solve your distribution needs, both present and future.

At the heart of our new marketing effort is the "profit center"...a concept that grew from our belief that the best way for a railroad to make money is to sell its product—transportation—in a form that helps its customers make money. Each of our 4 profit centers concentrates on a limited number of related commodities. Grain and food products; lumber and paper products; automotive, manufactured and miscellaneous products; chemicals, fuels and metal products.





Each profit center contains all the elements necessary to design, price, implement and sell specialized distribution services. And each profit center effectively brings together all the needed analysis and decision-making functions, and all the data and skills, into one group. By simultaneously attacking the same problem from all angles, we can identify your needs, and marshal all of our resources to fill them.

The "profit" in profit center works 2 ways—for you, and for us. At the Milwaukee Road we're working harder to make things easier.

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Watching Washington

R.M.M. McCONNELL

BUBBLE, BUBBLE...

As pleasant as the holiday season always is, the Christmas and New Year's celebrations just passed brought special delight to railroad men. Not only were trains filled with passengers, and newspapers filled with pictures of rail station crowds not seen for two decades, but the New Year got off to a roaring start with a Presidential signature on the legislation that is supposed to solve the Northeast rail crisis.

But just as Christmas wouldn't be Christmas without Scrooge, railroads wouldn't be railroads without some bad news. So the Interstate Commerce Commission published its annual report.

...TOIL AND TROUBLE

Chief among its concerns, predictably, was the condition of the railroads in the Northeast rail corridor. And just as predictably, the concern was justified. Not only was the financial situation unimproved, the material condition of the railroads involved had deteriorated. In fact, the ICC report said, the erosion of railroad resources in the Northeast had made the reorganization promised by the Regional Rail Reorganization Act even harder to achieve and even more expensive. Moreover, some of the legal fees facing the railroads in reorganization had climbed so high that the Commission had unilaterally reduced the amounts requested in some cases.

At the same time, while the condition of the Penn Central was dominating the headlines, the Commission was faced with a threatened stoppage on the Central of New Jersey. While the Commission was making plans to have other carriers take over the Central's routes, the crisis moderated. Then the Lehigh Valley sought to stop its operations.

THEN—THE FREIGHT-CAR SITUATION

Also getting some attention in the ICC report was the freight-car shortage, described by the report's authors as "the most severe in the history of the Commission." According to the Commission, the freight car shortage presented almost a summary of what has been happening to transportation in America over the past few years.

First, the massive United States grain sale to the Soviet Union put so great a burden on the nation's hopper car supply that the ICC authorized use of open-top hoppers to carry grain and soybeans. Then, while the cars were burdened—but at least profitably burdened—came the energy crisis and diesel fuel shortages, as well as heavy rains in the spring and fall and early snow that effectively prevented easy movement of rail rolling stock.

Optimists may say that that's all last year's history, and that with the Regional Rail Reorganization Act and the different plans recently unveiled to permanently solve the freight-car shortage, things are going to be better this year. Maybe so. But the present enthusiasm for the nation's railroads came up as fast as a summer storm, and unless it is carefully channeled into obviously productive efforts, it could blow away just as quickly.

Why for a

Servo is the world's leading producer of electronic hot box detector systems.

We're not experts in every phase of railroad safety — but as the industry's pioneer designer and producer of electronic hot box detection systems, we can claim a high level of successful experience in working on the problems of bearing failures, axle burn-offs and derailments associated with undetected hot boxes.

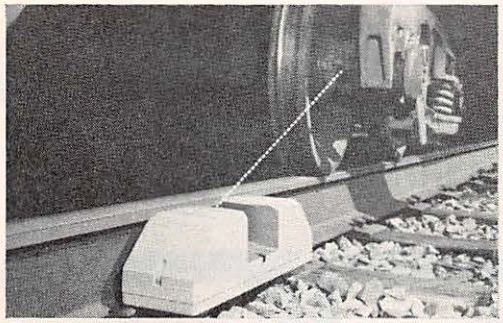
Since 1957, more than 1,800 SERVOSAFE Hot Box Detective Systems have been put into service, and have compiled an unequaled record of safety improvement, more efficient preventive maintenance procedures and cost reduction.

Hot box detectors available from Servo offer the widest flexibility in choice of system configuration, features and functional options, including: rail-mounted or ballast-mounted scanner; a complete selection of ancillary and test equipment; solid-state electronic signal processing. Several modes of data read-out are also available — automatic digital read-out at trackside or remote location; pen-paper recorder chart for visual interpretation; FM carrier data transmission over unlimited distances.

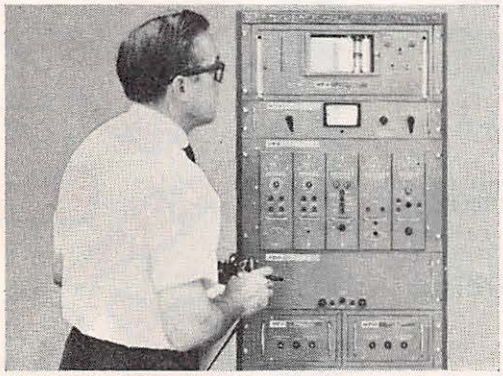
With our broad range of products and world-traveling network of field engineers, we can readily "customize" the design, manufacture, installation and operation of a SERVOSAFE System to best meet the particular requirements of your railroad.

You are invited to contact us for complete descriptive literature, or to arrange a field engineering site survey and application review — without obligation, of course.

spend the capital SERVOSAFE® system?

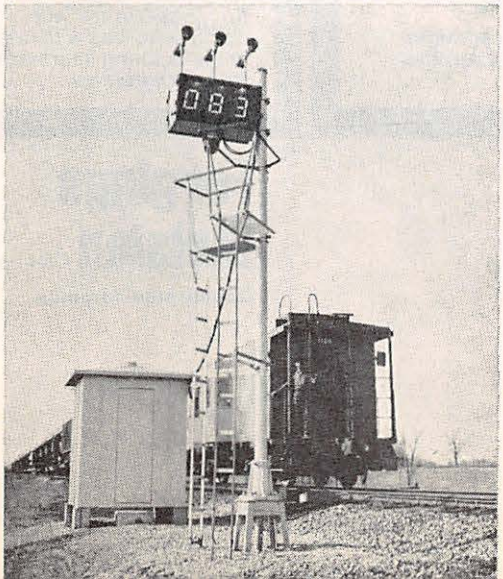


Rail-mounted scanner "looks" at and measures the heat radiated by passing journal boxes.



Solid state electronic data processing equipment, with permanent record chart recorder.

Trackside display board gives digital read-out of hot box location.



BECAUSE SERVOSAFE CAN REDUCE MAINTENANCE COSTS. Journal box and wheel set maintenance represent substantial costs each year. Part of these costs is due to normal bearing wear as cars age. Much higher costs, however, are involved when equipment is needlessly damaged by continued operation after lubrication has failed—causing major salvage jobs or replacement of wheel sets.

Where SERVOSAFE Systems are used for early detection, experience has shown that only 1 out of 10 hot boxes required a wheel set replacement. With other methods, as many as 9 out of 10 that came in for repair required new wheel sets.

BECAUSE SERVOSAFE CAN REDUCE LABOR COSTS. With SERVOSAFE providing an automatic and more precise method of inspecting journal boxes, railroads have been able to significantly reduce the number of personnel formerly required for manual and visual inspection of wheel journal boxes.

BECAUSE SERVOSAFE CAN MORE THAN PAY FOR ITSELF. Obviously, the single most important reason to make a capital investment in SERVOSAFE is to decrease the fearsome prospect of one of the greatest capital losses a railroad faces: a derailment caused by a bearing failure. The total cost of a derailment cannot be determined in advance, but it is not unrealistic to estimate that one serious derailment could cost a railroad more than 20 times the investment in a SERVOSAFE System. That's why most railroads agree that SERVOSAFE protection isn't costly—*lack of it is!*

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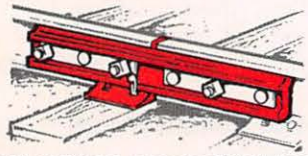

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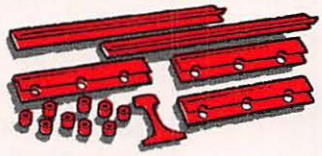

A unique new technology for joint insulation! Up to 10 times the service life of fibre insulation.

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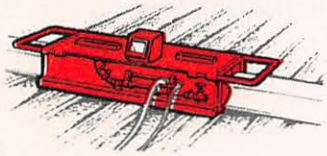

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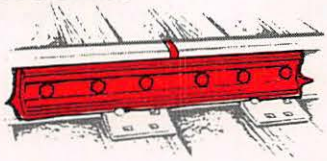

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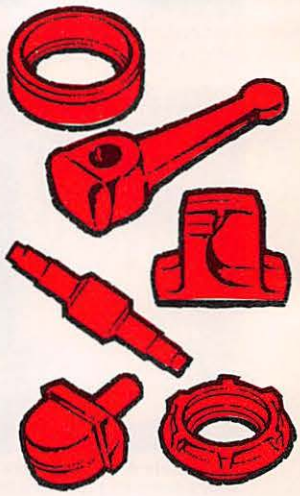

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In 1974, Portec will continue to lead with new product developments

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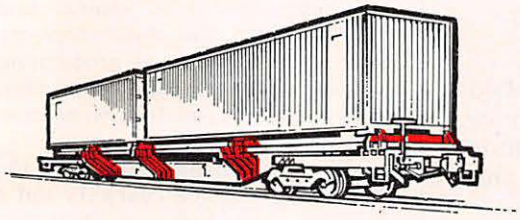
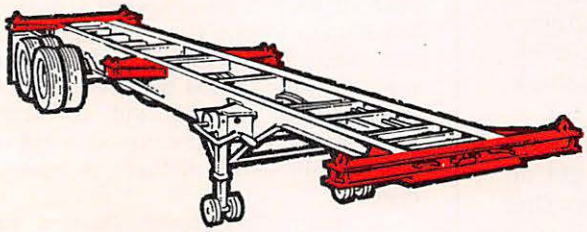
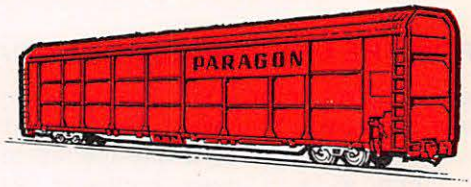




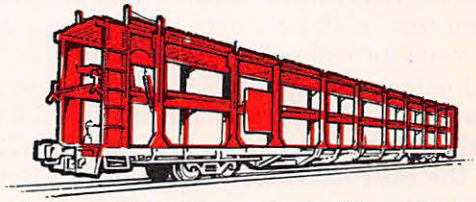
Unique new securement systems for TOFC flat-bed trailers, container chassis and non-cushioned container rail cars. Assures greater security, faster loading and unloading.

Portec Rail Pac® Multi-Level Auto Rack Cars



Completely enclosed rail cars for protected shipping of automobiles, trucks, etc.

New-Design Multi-Level Racks



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Lines on Labor

GUS WELTY

PUT YOUR FEET IN THE SHOES. . .

Figure, for a moment, that you're a negotiator, and your job is to work out a contract in the railroad industry in 1974. Role-play on the management side, and then role-play on the organization side. Concede, first of all, that what you're doing is a pretty thankless task. If you're management and you make a settlement, the people you represent will grumble that you're giving away the store. If you're union and you make a settlement, the people you represent will scream "You settled for *that?*" But, play the roles. What do you want? What do you need? What can you live with?

FROM MANAGEMENT'S SIDE, WHAT GOALS–OR GOAL?

If you're management, sure, you want to get out at the least total cost. In the railroad business, if you're giving money you need concessions on the rules side. You need to free things up, more than they have been. Like an archaeologist digging for artifacts, you need to scrape away the dust and dirt and get down to the good stuff. but, as much as anything else, you need what we'll call "predictability." You need—you have to have—a long-range way of forecasting what your costs are going to be. You need this, you have to have it, because you're in a regulated industry, and you have to spend months getting price increases approved. You need, in short, a long-term agreement. Three years, say.

FROM THE UNION SIDE, WHAT GOALS–OR GOAL?

Now, you're union. You want money, definite and specified wage increases. You want better vacations, another holiday or so, more insurance. But, like management, you need one thing as much as you need anything else. We'll also call this "predictability." You need, your people have to have, some hedge against inflation. This is what is generally called a cost-of-living escalator. It has been in contracts in the industry before, it has been asked-for in recent negotiations but it has been one of those things that got dropped. Still, it makes sense. It would provide income protection.

Instinct is not always reliable. But instinct, at this point, says that both rail management and rail labor would like to get an early settlement, just as they did in 1973. Instinct also says that in the restructuring of the Railroad Retirement system—a plan for which is to be submitted to Congress by April 1—there could be a means of settling a lot more than just Railroad Retirement. Like maybe everything that could be involved in 1974 negotiations. What else does instinct say? It says that '74 will be the year of the real test—the real test of whether rail management/labor relations actually have improved. It is not hard to be apprehensive, because negotiations will be difficult—perhaps as difficult as they have ever been.

But, pull on again the shoes of the negotiator. If you could straighten out the Railroad Retirement mess, if you could get (and give) concessions, if you could get a multi-year agreement with that "predictability" factor, if you could include some kind of cost-of-living protection (albeit with respectable time-frame and money limits), would you sign? You just might. And why not?

Chessie sees coal loadings up 10%

Chessie System achieved record earnings of $67 million in 1973, equivalent to $7.71 a share, up 26% from last year. (This is by generally accepted accounting principles. By ICC accounting, which makes no provision for deferred taxes, earnings were $9.20 a share.) Operating revenues, $1.1 billion, were also at an all-time high.

Revenues from merchandise traffic were up 11%, and from coal, coke, and iron ore traffic, up 5%.

These results were disclosed in Chessie's "flash annual report." The report put Chessie's 1973 capital expenditures at $40 million, of which $23 million went for freight cars.

Chessie, the largest hauler of bituminous coal in the country, looks forward to a continued energy crisis with mixed feelings: it stands to benefit in the near future, but a prolonged downturn in the national economy could eventually pull it down, too.

The National Coal Association has predicted that, given favorable conditions, including relaxation of environmental standards and labor demands, coal production could increase this year by 8.5% to 12%. On that basis Chessie estimates its own increase in coal haulage would be at least 10%.

Chessie moved 81 million tons of coal from mines in its own territory last year, 14% of national production. Including shipments from connecting railroads, 101 million tons went over the system.

To meet increased demand, Chessie says it has recalled coal cars and locomotives which had been on temporary lease to western lines. Several thousand other units from a fleet of 70,000 coal cars, which had been laid up for lack of loadings, were started back into service. Additionally, Chessie will construct 2,000 new coal hopper cars at a cost of $33 million, most of them as replacements.

Although "regrettable from a national standpoint," the energy crisis will point up the energy efficiency of railroads, says Chessie. Coal gasification is one scheme being considered to meet the crisis, and the report observes that any such process could benefit the railroads, "either by transporting the coal or by allowing their rights-of-way to be used for pipelines."

As for 1974 prospects, Chessie commented: "The same combination of a good level of business, if it comes as expected, coupled with a vigorously controlled expense base, could prove as effective in the year we have just entered as it did in the year which has just closed."

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1974 Calendar of Meetings and Exhibits

FEBRUARY

An **International Conference on Waste Oil Recovery and Reuse** will be held Feb. 12-14 in the Statler Hilton Hotel, Washington, D.C. Sponsored by the Association of Petroleum Re-Refiners, the conference is to be presented by Environmental Quality Systems, Inc. Inquiries should be addressed to the conference c/o Information Transfer, Inc., 1101 Sixteenth St., N.W., Washington, D.C. 20036.

A conference on urban transportation—focusing on the energy crisis, environmental protection and urban growth—will be held in Miami, Fla., Feb. 15, at the Sheraton Four Ambassadors Hotel.

A **National Conference on Standards for Environmental Improvement** will be held at the Marriott Twin Bridges Motel, Washington, D.C., Feb. 20-21. It will be sponsored by the American National Standards Institute and co-sponsored by the American Society for Testing and Materials and the American Society of Mechanical Engineers in cooperation with the country's leading standards developing organizations. Registration information may be obtained from ANSI, ASTM or ASME.

The 58th annual general meeting of the **Canadian Industrial Traffic League** will be held Feb. 20-21 in the Winnipeg Inn, Winnipeg, Man. In addition, the League is holding its 18th annual Traffic and Transportation Conference on Feb. 21, in conjunction with its annual meeting. Theme of the conference: "Transportation and Regional Economic Disparity."

MARCH

The next meeting of the **American Railway Engineering Association** is set for March 18-20 in Chicago's Palmer House.

The annual **Data Processing Symposium** co-sponsored by Informatics Inc. and the University of California, Los Angeles, is set for Mar. 27-29 on the UCLA campus.

APRIL

A three-week **Electric Railway Technology Course** will be offered by the Transportation Research Institute of Carnegie-Mellon University April 1-20.

Theme of the ASME-IEEE **Joint Railroad Conference** (Hilton Hotel, Pittsburgh, Pa., April 2-4), will be "Rail Transportation—Energy Crisis Superstar."

The **Operating Rules Association** will hold its next meeting April 25-26 in Louisville, Ky.

MAY

Part of the 1974 **National Computer Conference & Exposition** (to be held May 6-10 in Chicago's McCormick Place), will be a special program covering application of computers in transportation.

The **National Association of Shippers Advisory Boards** will hold its annual meeting at the Brown Palace Hotel, Denver, May 8-10.

A meeting of the **National Railroad Piggyback Association** will be held May 14-16 in the Marriott Hotel, Atlanta, Ga. NRPA also will hold a meeting in San Francisco in September.

The **Sixth International Conference on Urban Transportation** is scheduled for May 20-21. The conference, to be held in Pittsburgh, Pa., will focus attention on current problems and new developments associated with urban mass and rapid transit systems.

An international transport exhibition, **Trans 74,** and a conference on transport problems, will be held May 21-26 at Bella Centret, Copenhagen, Denmark. The exhibition is being arranged by the Association of Transport Material and the Danish Society of Transport Economy in cooperation with Bella Centret.

The **Association of Railroad Advertising Managers** will meet May 26-29 in Monterey-Carmel by the Sea, Calif.

JUNE

The next meeting of the **American Association of Railroad Superintendents** will be held June 18-20 in the Marriott Hotel, New Orleans, La.

A business meeting of the **Institute for Rapid Transit** will be held on June 18, to be followed by the IRT's annual conference on June 19-21. The place: Century Plaza Hotel, Los Angeles, Calif.

The **Safety Section, AAR,** will meet June 24-26 at Colorado Springs, Colo.

The Railroad Public Relations Association 1974 meeting will be held June 26-30 in the Broadmoor Hotel, Colorado Springs, Colo.

The **Mechanical Division, AAR,** will meet June 27 at the Marc Plaza Hotel, Milwaukee.

SEPTEMBER

The **Treasury Division, AAR,** will meet Sept. 2-4 at the Greenbrier Hotel, White Sulphur Springs, W. Va.

The **National Machine Tool Builders' Association** biennial 1974 International Machine Tool Show will be held Sept. 4-13 in Chicago's International Amphitheatre and McCormick Place. Theme of the show: A World of Production Ideas.

The **American Short Line Railroad Association** will hold its annual meeting at the Homestead, Hot Springs, Va., Sept. 8-11.

The annual meeting of **Traffic Clubs International** will be in the Del Webb Town House, Phoenix, Ariz., Sept. 15-18.

The annual meeting of the **Coordinated Associations** will be held in the Pick-Congress Hotel, Chicago, Sept. 16-18.

Railway Systems Suppliers, Inc., has scheduled its 1974 exhibit for Sept. 16-19, at the Regency Hyatt House, Atlanta, Ga. The exhibit is held in conjunction with the annual meetings of the AAR's **Communication and Signal Section** and the **Data Systems Division.**

The **Police & Security Section, AAR,** will meet Sept. 23-25 in Washington, D.C.

The next exhibit to be sponsored by the **Railway Engineering-Maintenance Suppliers Association** is set for Sept. 30-Oct. 3 in Donovan Hall of Chicago's International Amphitheatre. It will be held in conjunction with the annual conventions of the Roadmasters' and Bridge & Building Associations, to be held in the Palmer House.

OCTOBER

The **Accounting Division, AAR,** will meet Oct. 3-5 at the Queen Elizabeth Hotel, Montreal.

The **Railway Tie Association** will meet Oct. 23-25 at the Contemporary Hotel, Lake Buena Vista, Fla.

NOVEMBER

The **Rail Transportation Division, ASME,** will meet Nov. 17-21, at the Statler-Hilton, New York.

The **National Industrial Traffic League** will hold its annual meeting at the Americana Hotel, Bal Harbour, Fla. Nov. 20-22.

The **Railway Progress Institute** will hold its annual meeting and dinner at the Conrad Hilton Hotel, Chicago, Nov. 21.

AAR member road meeting is tentatively scheduled for Nov. 21 at the Conrad Hilton Hotel, Chicago.

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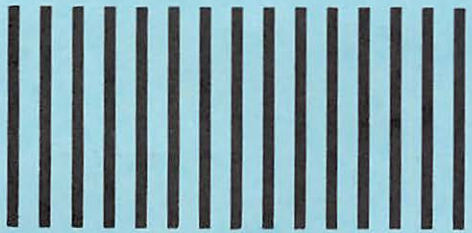

All the way down the U.P. line... Bob Hague makes connections.

The life-line of Union Pacific Railroad is communication. To keep Union Pacific trains rollin', computers must compute, transmitters must transmit, phone lines must be open and radio frequencies tuned-in — all on a microwave network that stretches from Mid-America to the Pacific Ocean.

Bob Hague is one of the equipment men in charge of maintaining this vast and sophisticated network of communication. Fortunately there are people like Bob Hague who make it work, for us and for you, 24 hours a day.

Bob is a top man at his craft. Because of him and the twenty-seven thousand highly-skilled people at Union Pacific, we're not just another railroad. We're the railroad that can handle it.

We can handle it.

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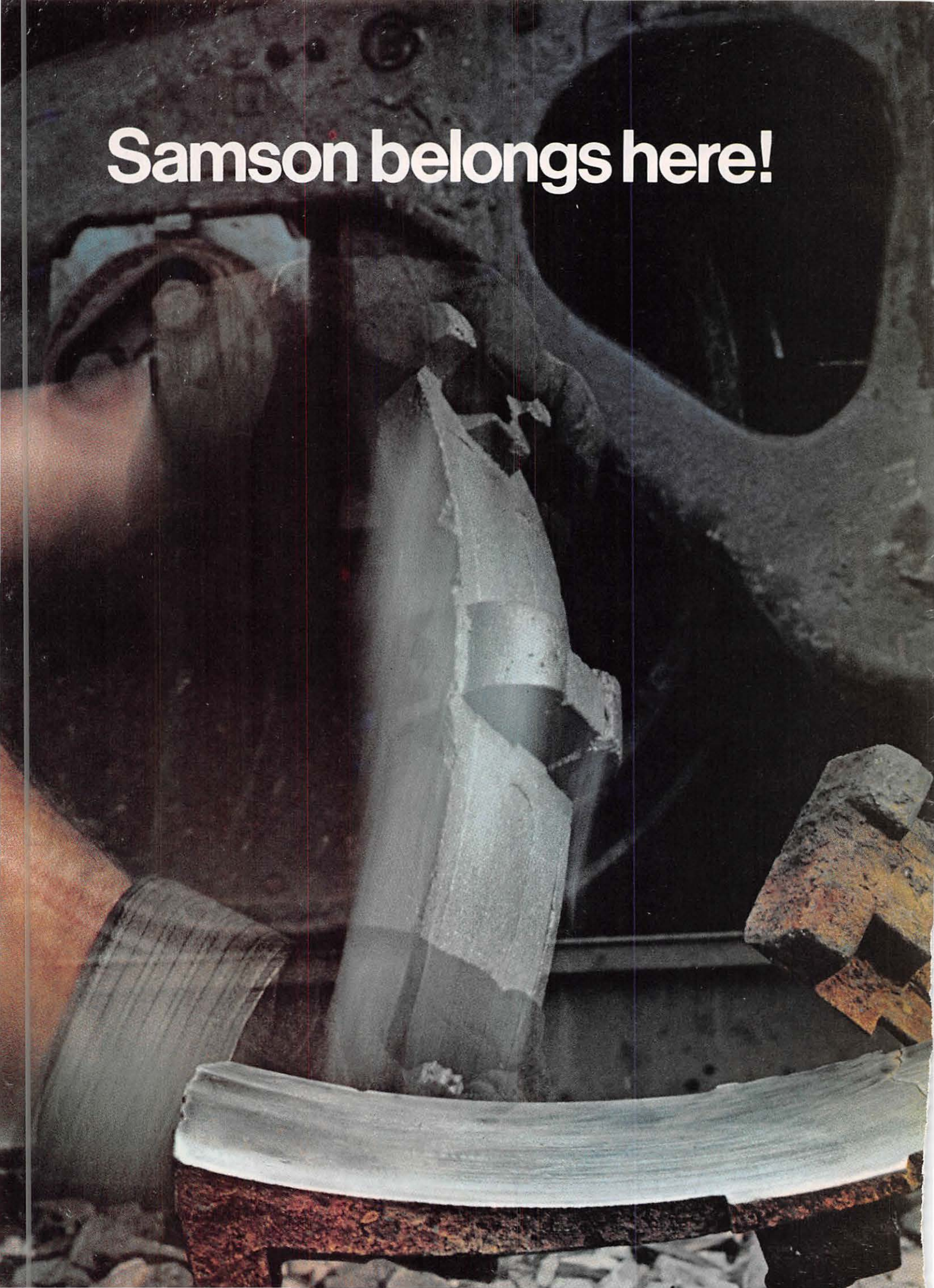
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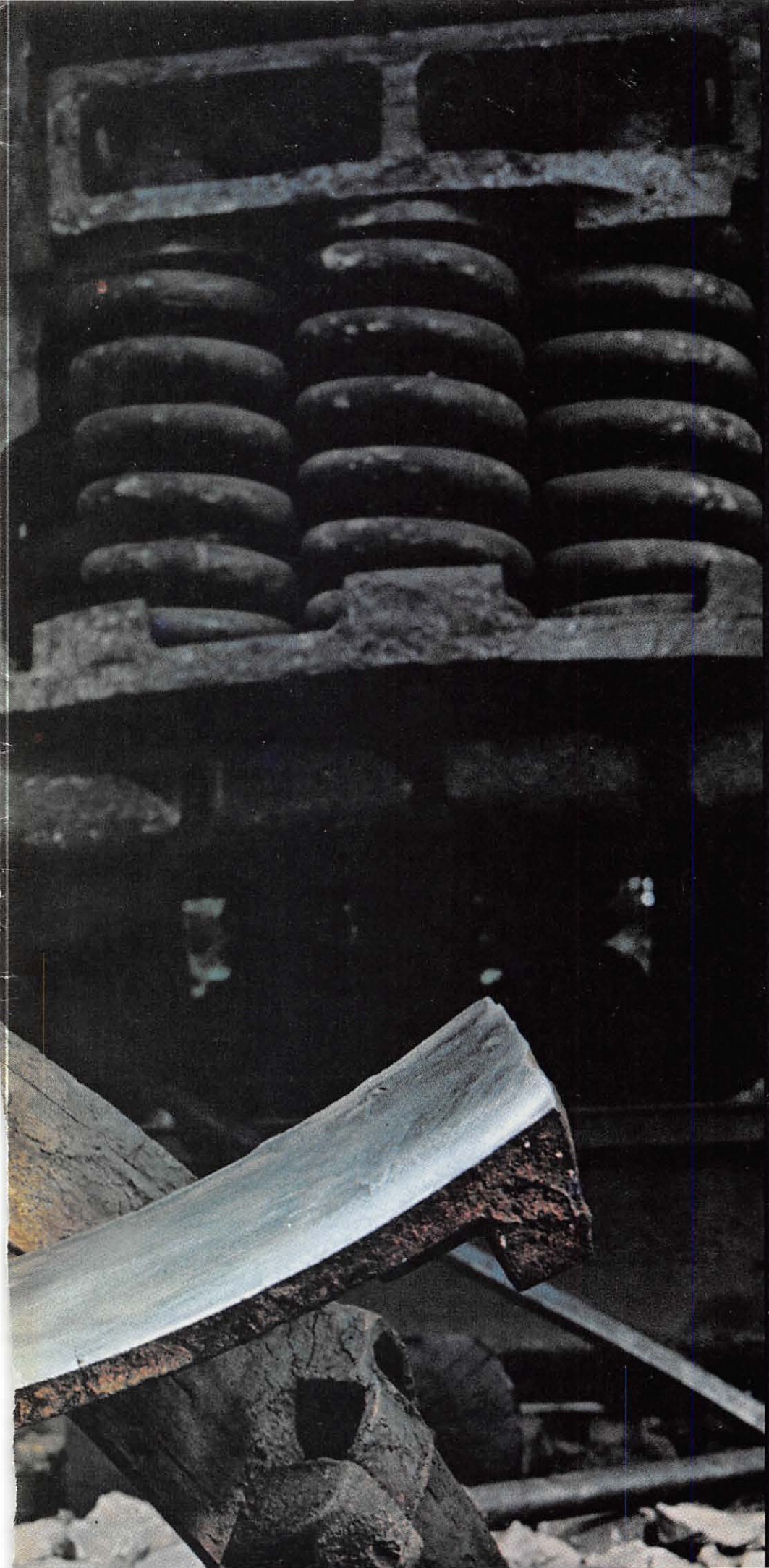

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You can cut brake shoe change-outs in half when you switch to Samson Shoes. These shoes last up to 2½ times as long as the old cast iron shoes and this can mean a saving of up to 54%. Add to this reduced wheel wear and you get an economic advantage that just can't be matched if you're still using the old-style metal shoes.

However, you gain much more than an economic advantage with these service tested shoes. Locomotive engineers report much better handling...both in terms of shorter stops, and a 12-pound brake pipe reduction as opposed to 18-pounds with standard cast iron shoes. A further advantage is greatly minimized sparking—a big aid in reducing hazardous track fires.

More than 4 million Samson Shoes have been delivered to roads all over the country and 29 roads have now standardized on them...that's quite a track record for any new product. Get the facts. Call your Abex representative. He's a good man to have working for your railroad.

BRAKE SHOE CHANGE-OUTS

	Std. Cast Metal	SAMSON
Average Cars in Consist	75	79
Average Tons/ Oper. Brake	115	115
Average Number of Shoes Changed Per Round Trip	207	98

Figures above show actual shoe consumption, per trip, obtained from more than ten round trips on a western railroad. Samson shoes show a two to one advantage over standard metal shoes.

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An exclusive Railway Age interview

DOT Secretary Brinegar: "I can see a

Transportation Secretary Claude S. Brinegar has the reputation in official Washington circles of being one of the ablest and hardest-working members of the Cabinet. He also, until recently, was perhaps the least known to the public at large. Then the energy time-bomb went off with a roar heard around the world—and Secretary Brinegar was thrust into a position of public prominence second perhaps only to that of the Secretary of State.

It is Brinegar's job to keep the world's busiest and most complex transportation machine functioning under conditions approaching wartime severity. Recently he sat down with Railway Age Publisher Robert G. Lewis and Editor Luther S. Miller to talk about the energy crisis generally, and its probable effects on the railroad industry specifically. A transcript of the interview follows.

Q. Mr. Secretary, how in your view will the energy crisis affect freight transportation patterns in 1974?

A. We will be pushing energy efficiency as a bigger criterion in Federal policy than we have in the past. Particularly in looking at our scarce oil supplies, we're obviously focusing on the rail freight system. Some of the uses of energy in the trucking field are under careful scrutiny. The ICC, for example, has opened the question of gateway restrictions.

I see a thrust in policy to say, "Find the best energy usage," and this of course has been behind much of our rail push in the last few months.

When you look at the data, it would almost say: don't use trucks at all—which, of course, isn't right. Ton-miles aren't the only measure. We have to provide service and speed. So it isn't a matter of just saying that energy drives all the decisions. But if we are doing things that are energy-inefficient, which I think we have been particularly in the trucking field, I can see a harder thrust toward rail.

Q. How about passenger transportation?

A. Similarly, we have to think about better use of energy in moving people. It doesn't mean, however, that you ground the airplanes. Under the umbrella of energy efficiency, people bring in all kinds of arguments. It's often suggested to me we ought to double Amtrak in size because it's so energy-efficient. But of course if there are very few people on the cars, then you haven't done much.

What we are sort of saying is: you've got to find the right use of the mode, the mode that people want to use. An intercity bus full of passengers is, I suspect, equally as efficient as a very full Amtrak train. So other considerations have to be looked at.

But obviously Amtrak is being pushed harder, and intercity buses are being pushed harder, and in the allocations of very scarce oil there will be a discouragement to half-empty airplanes.

Q. Are you concerned that there may not be sufficient equipment, both trains and buses, to do the job?

A. In the short run I think we're going to be struggling for equipment. There is, of course, a lot of spare capacity in intercity buses in the sense that they have been somewhat like the airplane, in that their average load factor is something like 50% so that they can in the short run, simply by better scheduling, increase their usage a great deal.

Amtrak is short of cars. They are working to recondition their existing equipment and they have placed orders for new cars, but not much can be done in the short run. Amtrak particularly will suffer from equipment shortages in the next 12 to 18 months. There's not a great deal of carbuilding capacity in this country over a short time period, either for buses or rail cars.

Q. Would you find it objectionable to go shopping for cars abroad?

A. Not at all, if they're available and can be used. After all, we had to go abroad for oil and we recognize that there are other things you have got to go abroad for. Hopefully, there are things we can sell abroad to get the money back.

Q. Passenger carriers and transporters of food are now guaranteed 100% of their current fuel demands. But freight carriers generally are "allocated" 110% of 1972's actual consumption. The railroads say that this only gives them a "license" to join the long line of others looking for scarce diesel fuel; they are concerned that they simply will not be able to find it. Is there, do you think, a good case for moving these carriers into Category I, which would presumably insure that they get their allocation?

A. There may be a case for it; we're looking at these issues right now. The regulations are still somewhat in flux. Initially allocations were based on the simple question: given so much fuel, where would we put it?

In the very short term, like 90 days, diesel fuel is the scarcest possible product. This has had to be rationed across the system.

The passenger train uses really minor amounts of fuel relative to the national total, and I think Amtrak basically ought to be encouraged to go all out. Meanwhile, there are only 22,000 or 23,000 intercity buses.

But in common carrier freight, both rail and truck, we're getting into big numbers. The rationing process said basically that we had to share that across the system.

Diesel is essentially a tradeoff with home-heating oil. The 110% that was pushed out there for the common carriers of freight was in many ways a very generous amount considering what was on hand, because we are really taking it out of the home heating oil market, and to say to the carriers that they could have all they want would probably be to cut the home heating oil market back so much that it would be intolerable.

There are probably things the rail freight system can do to save energy. I think a little pressure is in order, and if it turns out to be hurting the carriers too badly, then we'll go out and fight for some more fuel, provided we can find it. That's what comes next.

But diesel is the big short commodity and 110% is a pretty good ration.

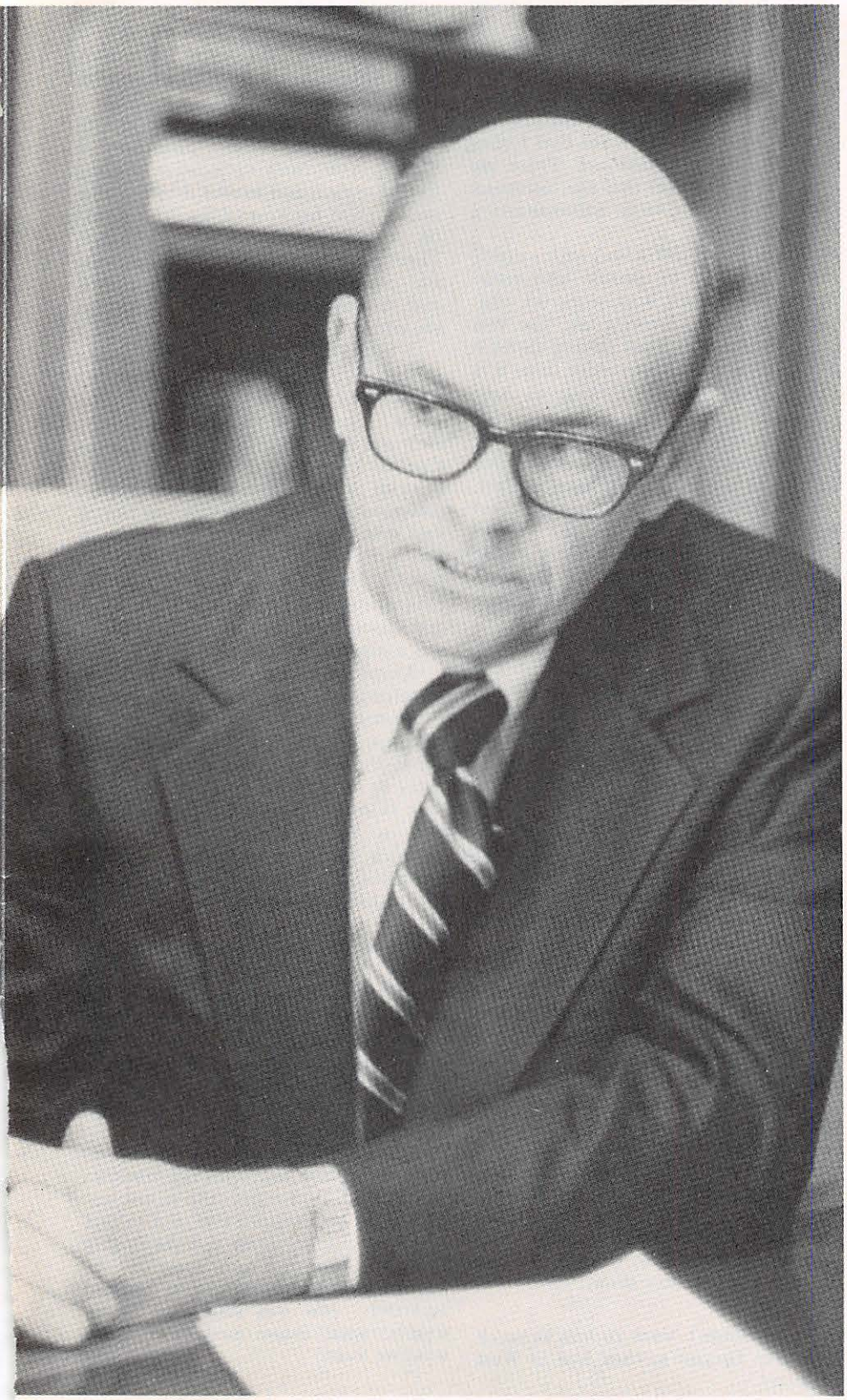
Q. It's a pretty good ration, but it's not so good if you can't find it.

A. Well, the government could give them 120% or 130%, and if the oil companies don't have it in the tanks, if they haven't gotten crude oil from some place, then the whole thing is moot.

I've told the railroad presidents and others that I deal with, "If you really have serious problems getting fuel, then let us know, and we will go to bat personally for you and try to locate it." We have set up an Office of Energy Policy here at the Secretarial level which is functioning on an emergency basis. One week we'll deal with the truckers, and the next week with the airlines and, if necessary, we help the railroads. We tried to help Pan-Am find fuel, and we did. We even helped Aeroflot, the Russian line that flies out of Kennedy, to find some fuel.

I think that given the shortage, 110% is a pretty good number. If we get more, I'm sure the railroads will get more. I've asked them to keep us informed on the extent to which they are being hurt. Rail carriage represents such an efficient use of energy that we don't want to damage it.

harder thrust toward rail"



"Rail is in a real growth period of freight, and I see that trend continuing.."

Q. Do you anticipate an increase in total freight haulage in 1974?

A. It depends on how bad the energy shortage really is, and what its secondary effects are in the economy. These are things that have got Washington very perplexed right now. My personal view is that rail and truck freight will be up in 1974, but perhaps by not as much as it would have been if the Arabs had not imposed their embargo.

I think rail is in a real growth period of freight and I see that trend continuing.

Q. What is the broad thinking behind the Department's railroad legislative program?

A. The bill's major thrust is to try and give the railroads some flexibility in decision making and management, so that they become more vigorous competitors for freight. There's genuine agreement among those who have looked into this thing carefully that what has hurt rail the most has been their inability to adjust to changing economic conditions. The thrust of our bill is to give them the ability, for example, to experiment with rates a bit, to move within a range, and, hopefully to find ways so they are not forced to move things at a loss. They also need more freedom to abandon obviously losing operations. Basically, we want to let them manage a little more intelligently.

Along with this sort of restoration of the management prerogatives, I think we have to offer some money, some access to financial resources, so that the really sick railroads can rebuild themselves. Their debt structures are high, their credit ratings aren't that great. So we will offer what I would call a first-step financial assistance program so that the railroads that are in bad shape can have access to capital. We particularly want to see terminal consolidations, yard consolidations—the sort of things that are hard to raise money for. You can already raise money for freight cars pretty well, though we wouldn't discourage railroads from using the money for that purpose.

Q. The bill would provide up to $2 billion in guaranteed loans, and an interesting thing is that unlike in past proposals, it would not be limited to rolling stock. . . .

A. As we dug into it, last spring and summer, I kept raising the question, "Who needs to do what?" Even Penn Central has been able to acquire freight cars, albeit at high interest rates. But it's

"We've effectively nationalized passenger carriers. But freight is a different matter."

harder to raise the money for things like investments to make it easier to move a freight car through Chicago or through St. Louis or Philadelphia.

Q. Will the so-called rich railroads be able to qualify for these loans?
A. They will have to submit some programs to show the gains that would result and I suspect that we would ask them to show why they couldn't do it themselves. In other words, there would have to be some indication that we were more than just a cheap banker. Interestingly enough, my discussions with the railroads have led me to believe that the handful of really good ones are not interested in this money. They would like to see others get it, because it would affect the through operations of the railroads and their ability to operate as a system coast to coast. But Southern Pacific, Union Pacific, Southern and other railroads say, "No, I don't need that kind of money but I can tell you 10 railroads that do."

Q. What is your position on abandonments? John Ingram suggested the other day that people who require the keeping of certain branch lines ought themselves to be required to file an environmental impact statement, his point being that to string two or three cars behind a locomotive is not necessarily very efficient.
A. That is certainly very true. I've had some difficulty in getting a really clean statement on the abandonment of branch lines. To say simply that it is only an economic question is, I think, to have a rather narrow view of it. You could argue that any line that doesn't pay its way should be abandoned. But as you move up toward the break-even point on an out-of-pocket cost, and try to examine the impact of that line on the whole system, it becomes harder to make a clean statement. We really would like to learn more about this, and maybe the Northeast restructuring will give us that opportunity. There is some money in the Northeast bill to permit short-term subsidy by communities. I think that the gains to communities might be so great that as we start putting pressure on abandonments, they will step in and help more than they have in the past, and look upon it as kind of like a city airport.

Obvious losers ought to be within the abandonment prerogatives. But as you get closer to break-even in some long-run sense, it's harder to get a clean decision. You could make a bold statement that would get a lot of attention, but when you get down to the pragmatics of it, I don't know that I could program a machine that would say, that one's in and that one's not in.

Q. There's a considerable flurry of new talk about nationalizing railroads, the most recent spokesman for that having been Dr. Barry Commoner. There are even those who feel that the Northeast bill represents de facto nationalization in that region.
A. Much of the talk about nationalizing the railroads is by people who really haven't done their homework on what the railroads of America are. The first thing they usually start talking about is all the good passenger service there is in France, for example. I think we *have* nationalized passenger service; even though Amtrak is technically owned by the railroads, pragmatically it's owned by the taxpayer. So we have, in fact, nationalized the kind of service that most people are talking about.

I'd call the Northeast bill a strong effort to avoid nationalization. It was an effort to find out how to salvage this mess within the framework of the private sector. The reason we finally reached agreement on some of the provisions of the bill that we found distasteful, particularly the labor costs, is that we realized if we wanted to fight too hard on it, and the Penn Central actually went into liquidation, we might end up Federally operating it. So the compromises were to keep it in the private sector, even though it called for some government front-end money. But the whole thrust of our approach was toward the end that 10 years or so from now you couldn't tell the difference between the restructured new railroad and Southern and Chessie and B&O. So we swallowed a lot of the social costs to redeem some of the bad decisions of the last 40 years; that's simply dealing with the facts of life as we found them.

The talk about nationalization is, I think, unfortunate and is based on special points of view and lack of knowledge and lack of study or naivete. America is not Europe, it is not Japan. I was in West Germany, and they showed me their fine railroad system. West Germany is the size of Oregon. If I had only Oregon to worry about!

Q. You wouldn't want to lose as much money in Oregon as they lose in West Germany.
A. No! And in Italy, the Minister of Transport showed me his railroad losses. His labor costs are nearly twice his revenues.

We've nationalized, basically, the air navigation system; we've nationalized the highways; we've nationalized, in effect, Amtrak. So we've effectively nationalized the passenger carriers. But freight is a different matter. It's a private-sector responsibility. Freight competes with other private-sector modes. You can't nationalize the rail freight system and expect it to be other than a great big Post Office. This would be a catastrophe for the country. There's a lot to be done to correct the sins of the past, but nationalization is just shoddy thinking. We'll fight it to the end.

I read Dr. Commoner's piece in the December Harpers, and I noted that he's a professor of plant physiology. You know, I stay out of plant physiology. He's out of his field. He has done some fine work in ecology. He wanted to take a swipe at our environmental impact statement that we filed with our Northeast railroad plan. Perhaps it was vulnerable. But he took this and made his points. He made them badly in my judgement. It isn't my job to sit down and dissect what he's done, but I felt it was a superficial piece of work.

Anybody who seriously looks at nationalization realizes quick-on that American freight is not European or Japanese freight. Dr. Commoner talks about the average freight haul in Japan being so short. Well, you've only got to look at Japan to realize why the average haul is short. It's a short country. America is a big country. You've got to recognize that America is different, and freight has to be handled competitively.

Q. A late addition to the Northeast bill was a provision for Amtrak's taking over, through lease or purchase, of the Northeast corridor lines between Washington and Boston, and, starting immediately, the investment of $500 million to $700 million in upgrading those lines and buying new rolling stock. How will you now proceed on that?
A. Actually, this part of the bill follows very closely our Northeast rail report of last March. At the time the report was shot at as being superficial, but in fact the final product came out reasonably close to what we recommended. We knew the Corridor had to be handled separately. We will start engineering studies; what comes next depends on what we learn.

Q. What precisely does the Administration have in mind for mass-transit operating assistance?
A. We feel that the present process by

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Cities that want rail transit, says Brinegar, must be ready to "put up a lot of the money for it."

which we are putting money into the cities is distorting their decisions. We are putting out nearly $1 billion in urban highway funds, and we're putting about $1 billion in UMTA capital funds. We now propose to tie these together into a unified urban fund.

We do not have now any way that some of the cities which are particularly hard pressed to operate these systems can be put under any pressure to institute what I could call good operating practice. They face a bunch of decisions: one is what to build, another is how to operate it, another is how to finance it.

The present process does at least two things that we're not happy with. Let's take incentive, for example. We will put up the money to buy buses. We're paying for 80% of the cost of a new bus. I suspect that there are cities that have an incentive to wear them out fast and come back for more buses, because we have that money; whereas there is no incentive in the grant process to encourage them to operate them for long life.

We're also distorting the process in *what* to build. We offer 80% of the capital for fixed systems, so they think big, they think expensive, and we're seeing too many cities think fixed-rail systems. The brochures they're preparing say, "Of course the Federal government will finance 80% of the cost." Why they are not looking at big bus systems, for example, is that the Federal government will *not* finance 80% of that if you include the drivers' pay. So I think we are distorting decisions in the direction of thinking about big capital systems because we only provide capital. We're distorting decisions as to how much money they spend for maintenance and for intelligent operating practices.

We would like to put these programs together, maybe with some additional money in a way that they will now be offered to the cities as a lump. This money would be offered to the cities through the states, somewhat like the urban highway fund money goes to the states and is earmarked to the cities. Then they must make their own trade-off decisions: do they want the urban transit system, or do they want to put some of the money into operational costs? Thus they have the pressures of the local decision making process as to what is the right thing to do.

Q. The UMTA figure actually, I believe, is around $900 million for capital grants; and the amount of urban highway funds that will become available on local option is around $800 million, which adds up to $1.7 billion. There's been talk of a "single urban fund" of around $2.2 billion, which leaves half a billion to be found.

A. We may phase up slowly. We may start out with $2 billion and then go up.

Q. But presently you just contemplate merging the UMTA capital grant money with the urban highway money? The UMTA money is now required to go into mass transportation capital projects. The urban highway money, while it can now go to transit projects on local option, very likely will continue to go largely into urban highways, the need for them still being great in some localities. Under the new plan, could some of the UMTA capital money actually go into construction of urban highways?

A. Possibly. Again, we are still working on some aspects of the proposal.

Q. Critics of this proposal suggest that all you are doing is playing with mirrors.

A. There will be some new money, though we have to put a question mark there right now. They can argue that it's playing with mirrors, but if they have more access to the money than they do now, and more flexibility, then we've brought something to it.

Q. This money would be disbursed on the basis of population?

A. My personal preference is that some large percent of it is allocated on some urban formula basis, and some part of it is reserved for grants to some of the cities that particularly need front-end money. This is still under development; the legislation is still to be fleshed out. Some part of it, 70% to 80%, I would like to allocate out; and some 20%-30% I would like to keep for grants. The cities who do good jobs of planning their future could be rewarded, I think, with some special grants.

Q. Wouldn't this tend to discourage any such costly rail-transit plans as that of Los Angeles?

A. I think it ought to be discouraged unless the people out there really want to put up a lot of the money for it.

Q. Under the present formula, they would put up only 20%. By a lot, do you mean half or more?

A. BART has financed more than two-thirds of theirs.

Q. On the other hand, Atlanta could only get a rail-transit vote passed on the basis of almost a promise of at least two-thirds of the financing by the Federal government.

A. I don't know what kind of promises were made to Atlanta. I think there were some assumptions. We have no legal authority to make long-term commitments. What you're pointing out are the problems of the present program.

Q. Hasn't one big problem been the disruptive effects of fits and starts within the Administration? We began with the UMTA Act, which it was thought at the time would provide contract authority; this was not, in fact, the case. Then there was the revenue sharing proposal, followed by the Highway Trust Fund approach, then the amendment of the UMTA act to provide not only for a two-thirds Federal share, but 80%. And now the single urban fund. How can cities make long-range plans with these repeated changes?

A. This is disruptive, and I would like to find a way to put in place a long-range program, so that money is coming every year and the cities can use it and possibly even borrow against it. In fact, a Los Angeles or an Atlanta could raise a great deal of money in the bond market if they had a stream of Federal money earmarked to them. This is partly a Congressional prerogative—how much authority do they want to give us? I don't like this disruptive side to it at all; I found as I came on board that the UMTA program had a lot of confusion about it. What were they trying to do? What were the criteria as to who got what?

We've now got contract authority up to $6 billion, and we've given out $2½ billion of it. Los Angeles would like all we have left and possibly more. And fairly soon there will be 10 other cities in line. So we need a program that deals with these things in a more uniform way, a more dependable way, in a way that these decisions are made locally.

Q. If you had been in your present position a few years ago, when Washington was making its own decision, would you have supported the Metro for Washington?

A. I don't know. I have instructed UMTA to give us some criteria that will enable us to guide future decisions more than who got in line first; and I think, out of that, we will be able to go public on some criteria as to where we would encourage or discourage this kind of approach. ■

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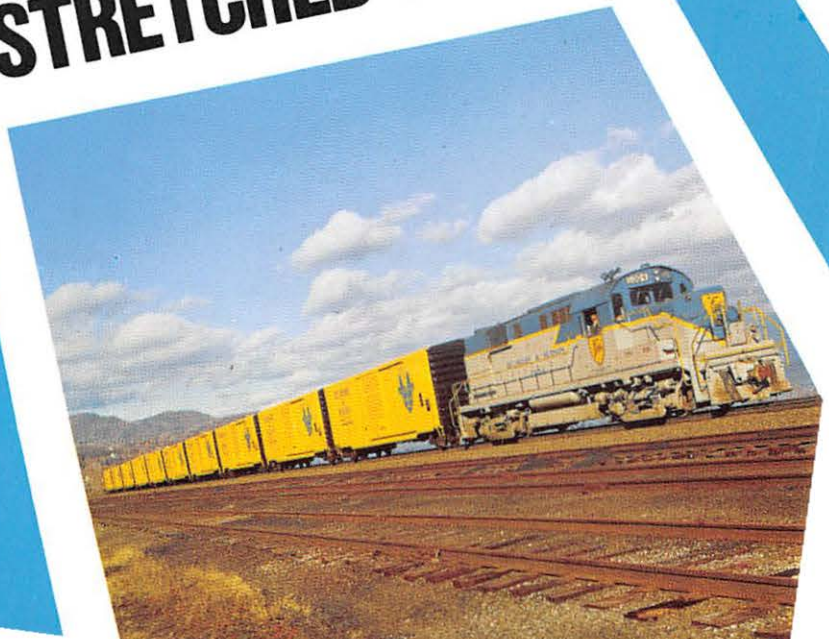

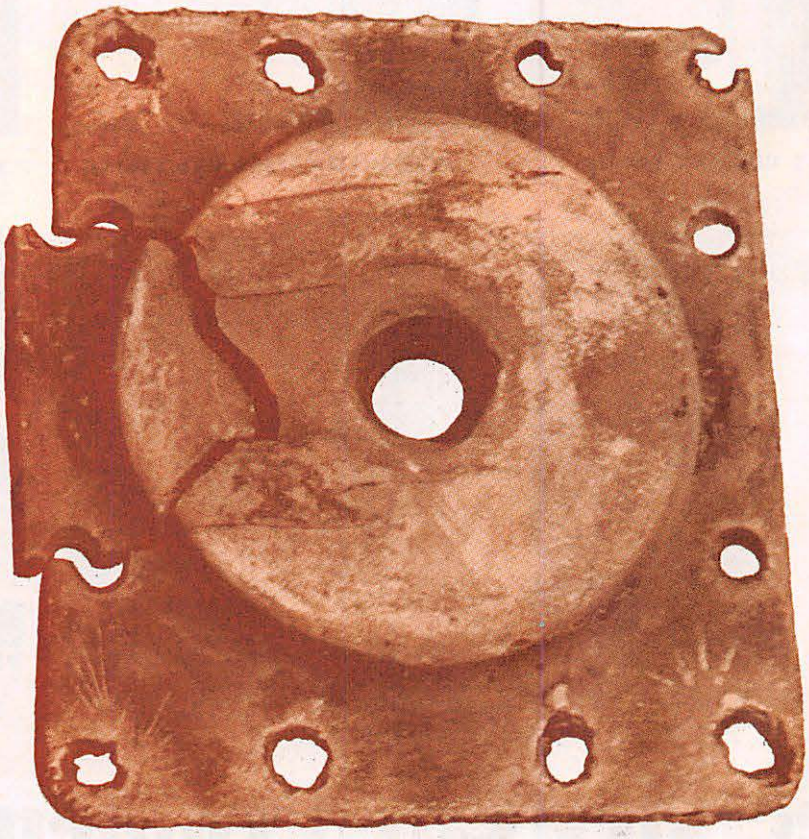

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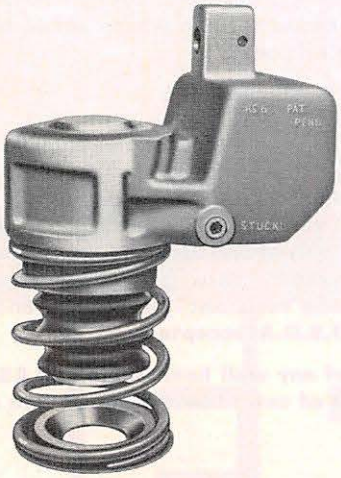

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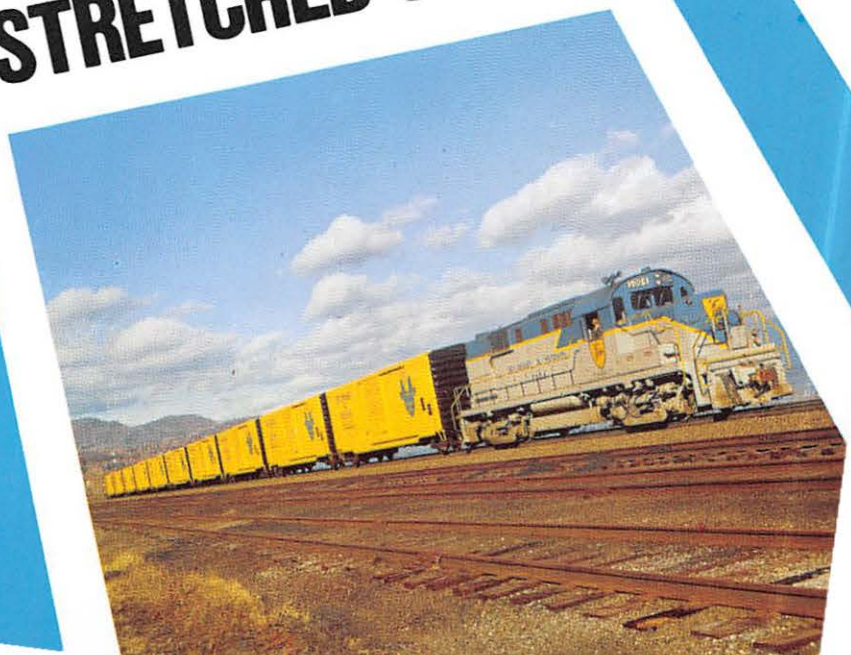

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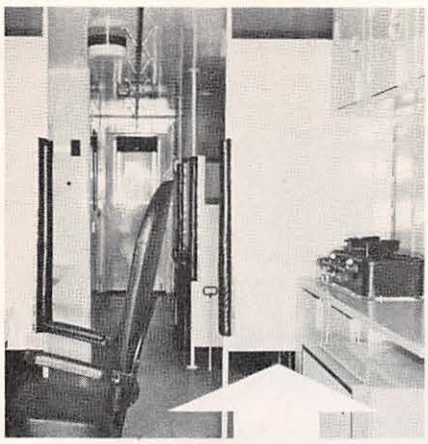

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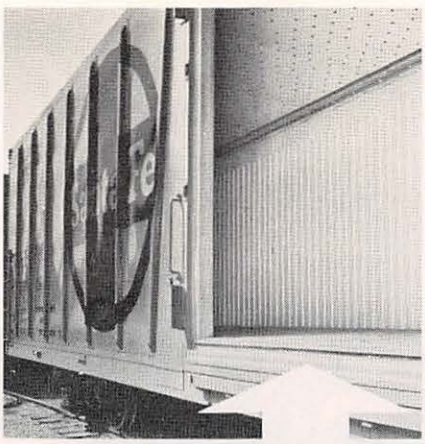

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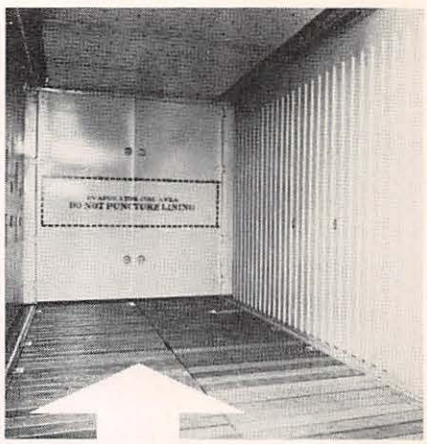

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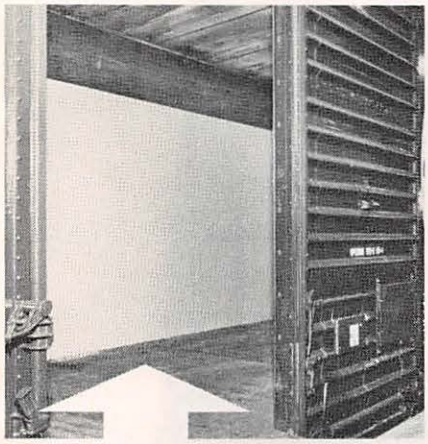

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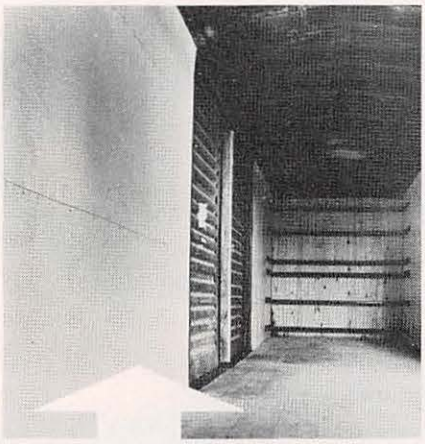

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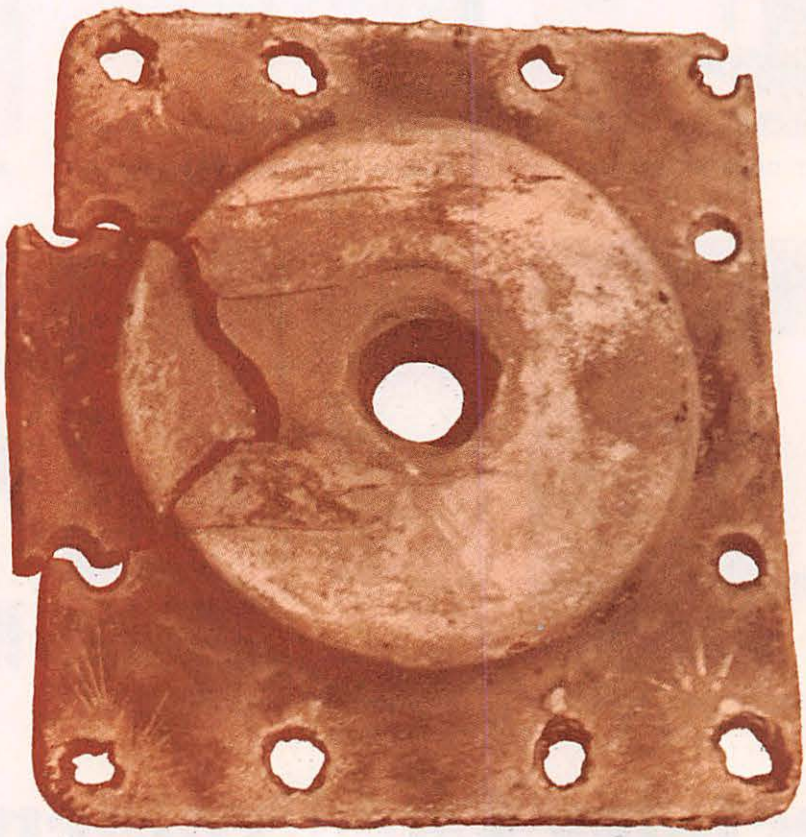

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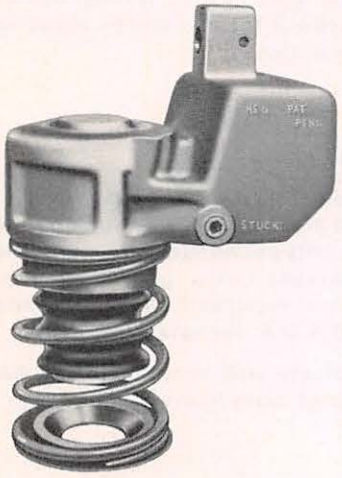
Whatever your requirements may be, whether yours is a ride quality or rock and roll problem, we have the engineering, the experience, and the hardware to meet them.



A. STUCKI COMPANY

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Circle 14 on Reader Service Card

In a year of imponderables, fuel supply leads the list

As the story goes, nobody is so skilled as an economist in leading off a forecast with a specific—and following it up with "On the other hand, however. . ."

This year, you can hardly even get that much. This year, the norm among forecasts seems to be a shrug, a baffled look and maybe a casting of the eyes toward the skies in prayer.

Finding oil is part of the problem; paying for it, another

It's that way with virtually all segments of the economy—transportation included. And the big imponderable, of course, is energy: How much fuel will be available, and who will get it, and for what purposes, and at what price?

On the face of it, railroads *should* be standing in reasonably good position in the lineup at the fuel pump. But at this point there is no guarantee that what should be, will be.

Then, there's the question of transportation demand. Railroads are coming off a record service-performance year, and the projections are pointing toward further traffic increases. But, energy-related problems may bring cutbacks in a wide range of industries—automobiles, the petrochemical industry, you name it. Too, even though record harvests are being predicted, it remains to be seen what the actual transportation requirement will be.

Labor? Another potential problem, though perhaps not so much in the railroad industry itself since existing contracts with most unions run through the year. Still, bargaining will be going on in a number of industries where there could be a rail-transportation impact—steel, coal mining, maritime shipping, among them. Teamsters are demanding a contract reopening because of government-imposed highway speed restrictions which can cut drivers' pay.

Labor strife could hurt industries important to railroads

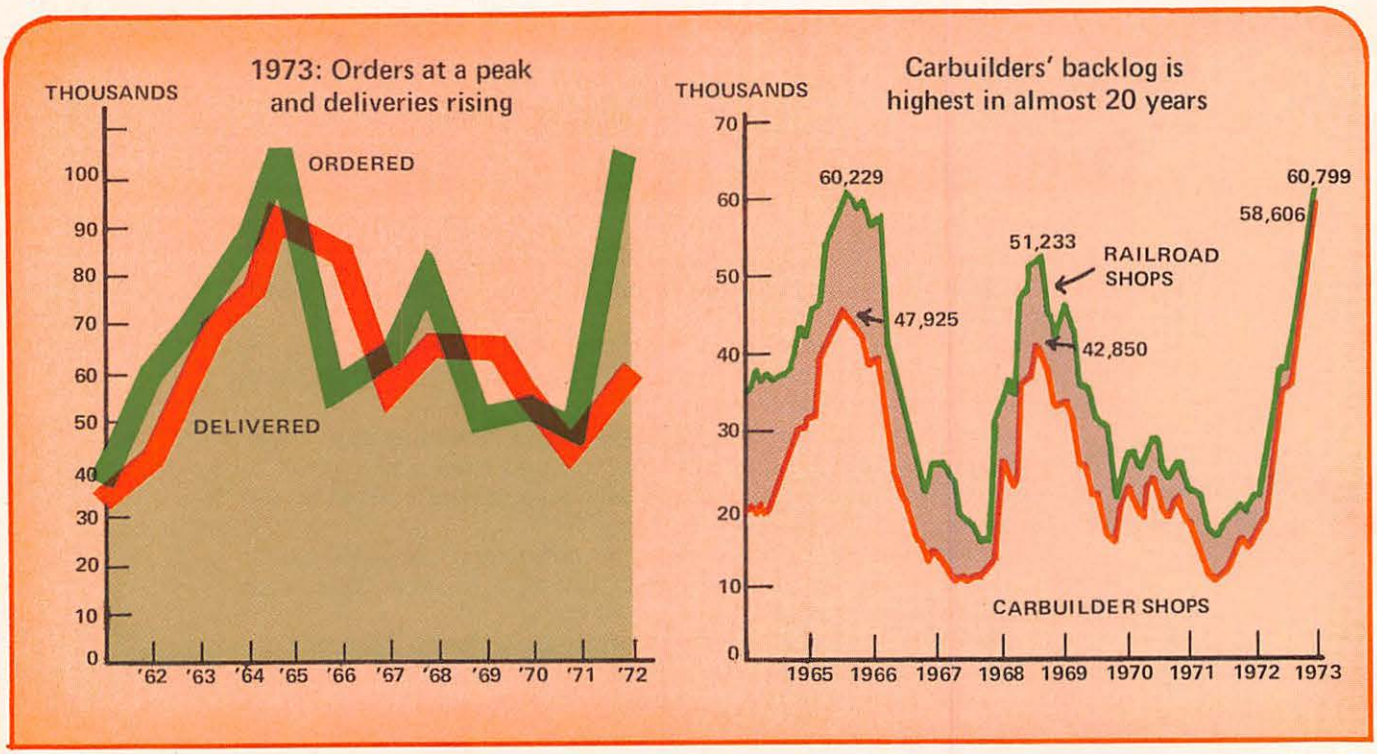
Prices? Yet another potential problem, if a consumer rebellion against price inflation swings buy/no-buy decisions to the no-buy side. Internally, railroads will without much doubt face more escalation in fuel and material prices (and will be paying employees more because of a 4% wage increase which came due Jan. 1). Congress and the ICC have indicated some sympathy for the idea of offsetting cost increases with rate increases, but it remains to be seen if railroads will be able to develop a favorable relationship between cost and revenue changes. The experience of last year gives no great encouragement: Revenues and expenses were both at record highs, and ROI continued at a depressed level.

One plus sign: Wall Street is starting to like rail stocks

Meanwhile, there are a couple of mostly-encouraging factors at work. One is that the stock market seems to be showing new respect for railroads. Another is that business generally and railroads specifically do not seem to be cutting back on expansion plans. A third is that the business and industrial community, over-all, does not appear to be gearing down toward a recession. There's a fair amount of opinion that a slump will set in, at least during first-half '74. But, the prevailing philosophy seems to be that "This, too, shall pass."

In this kind of year, it's appropriate that a major Railway Age editorial effort will be devoted to "Ideas That Work." On the following "outlook" pages are some of these ideas, dealing with equipment and plant improvements and improvements in the industry's use of its human resources.

outlook '74



Carbuilders booked into 1975

By FRED N. HOUSER
Mechanical Editor

Steadily through 1973 freight-car orders went up. . .and up. . .and up. By year end the total was nudging 100,000 and the year was one of the three best in almost a quarter century. Never before had carbuilders (with 95% of the 1973 orders) racked up such a dollar volume. With the sole exception of 1950, the number of new units placed on their order books was the highest in well over 40 years. Not for almost 50 years had commercial shops captured such a large share of the carbuilding market.

• **Encore in '74?** Could there be an encore in 1974? It seems unlikely the railroad and private-car market would produce two consecutive years of such order volume. It is probable that the 1974 orders will not top 70,000, but even that will involve long lead times since shops are already booked through 1974. What is most significant about the current boom is the virtual end of railroad-owned shops as a major factor in the construction of new cars.

No one in commercial carbuilding should worship "the good old days" if volume is the criterion. In 1973, carbuilders got orders for 95,000 new cars which can hardly be compared unfavorably with 1950's 109,566 cars and 1929's 97,238. These are the highs for the past *half century!* It would seem that carbuilders should not engage in an orgy of self pity if the market does not reach the 100,000-car level again this year.

Back in the order boom of 1966 (99,752 total and 73,211 for carbuilders) several new entrants expanded the capacity of the industry. In the subsequent shakeout (1967 orders totaled 53,724), some of these firms withdrew from the business. There has been little indication that there will be any new carbuilders produced by the current order levels. In the past year, as a matter of fact, two old-line producers—Fruehauf Railcar (formerly Magor) and General Steel Industries—have withdrawn from the field.

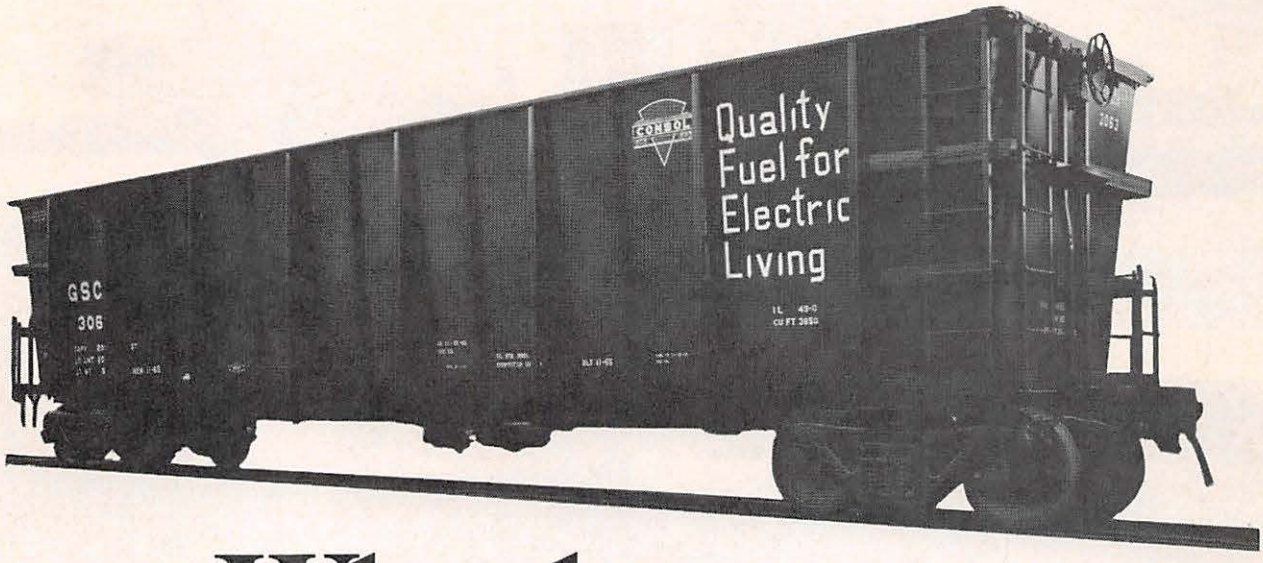
• **"Another good year."** Walter A. Renz, president of the American Railway Car Institute, recently observed that "recognition by the government that railroads should have top priority, along with continued buying of rolling stock and a healthy backlog, portends another good year for carbuilders.

"There are some barriers," said Renz. "Production may be hampered to some degree because of commercial factors affecting manpower, plant capacity and a shortage of basic steel all involved in our present type of market. The energy crisis may at least reveal to the general public the inherent advantages of the railroads. With more and more reliance placed on them, improvement of plant and equipment is essential. The conversion to different fuels will necessitate additional equipment. Establishment of pools of certain types of cars again seems a plus for carbuilders.

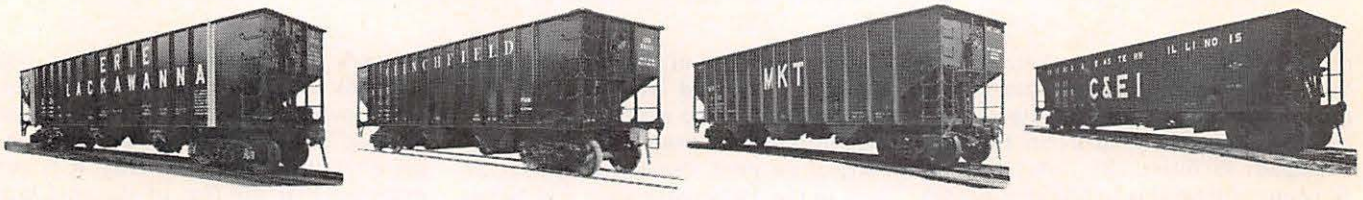
"Recently, at a meeting of ARCI's Market Forecasting Committee, a prominent rail equipment financing specialist stated that his firm was quite bullish about the attractiveness of rail equipment certificates indicating that what heretofore had been a problem of the railroad industry—securing necessary financing—seems to have disappeared."

A survey of carbuilder members by the Railway Progress Institute has shown that shortages might cost the production of 15,000 cars this year. It is estimated that 62,500 cars actually will be produced; but, fully utilizing existing capacity without uneconomical overtime, as many as 77,500 cars could be turned out. Wheels, axles and steel scrap for production of railroad castings are all in short supply, a problem which has been worsened by price controls. Scrap, for instance, is being exported at prices well above those which can be charged domestic foundries.

Suppliers are striving to meet the



What happens if coal captures 10% of the estimated 1980 markets for gasoline and natural gas?



To begin with, this can mean 313 million tons of coal will be required annually for this new market; much of it will move by unit train. If you are involved with coal mining, conversion, burning or movement, it's time you talked with Greenville. Greenville has built more unit coal train cars than any other manufacturer. They're in service. We have cost and performance facts. Call us. We can help you.

GREENVILLE **STEEL CAR COMPANY**
Subsidiary of Pittsburgh Forgings Company
GREENVILLE, PENNSYLVANIA

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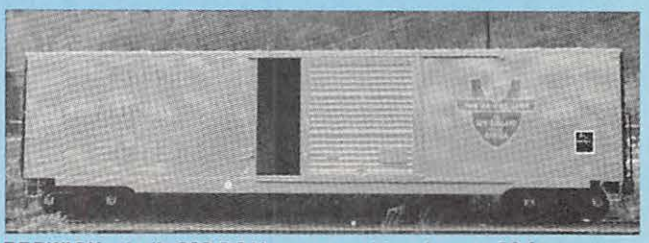
ACF steadily turns out Center Flows for grain and other bulk loads.

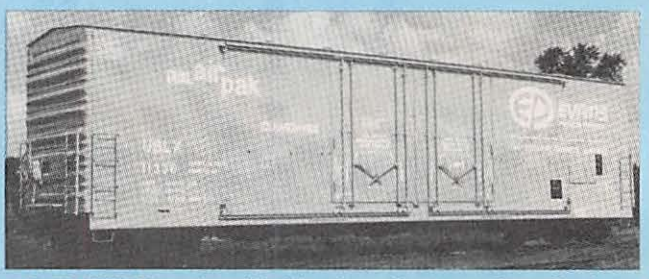
PULLMAN-STANDARD opened new piggyback-car production line.

THRALL built high-capacity gondolas for steel service.



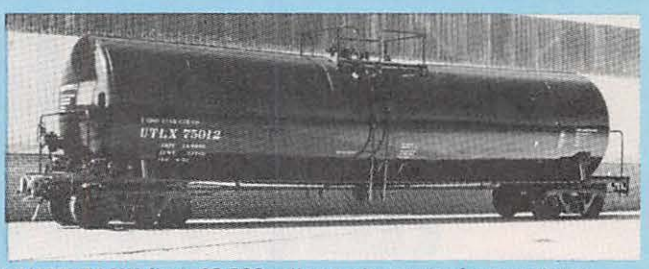
BERWICK rebuilt 200 D&H cars, stretching them to 50 feet.

NORTH AMERICAN experienced demand for covered hoppers.



U.S. RAILWAY produced bulkhead cars for parent Evans Products.

FMC backlog has many general-service box cars with lading devices.



UNION TANK finds 23,500-gallon tank popular for petroleum.

problems of the new market. Griffin Wheel has recently announced a $1-million expansion of its Bessemer, Ala., cast-wheel plant, one of its six U.S. and Canadian facilities. By late summer Bessemer will be able to produce 30,000 more wheels per year, "additional capacity needed to meet sharply increased demand for wheels by the nation's railroads," explains C.P. Voll, Griffin president.

C.B. Ramsdell, Westinghouse Air Brake vice president and group executive of WABCO's Transportation Systems Group, says that certain material and labor shortages are being encountered. Purchased castings have to be ordered 6 to 10 months in advance to ensure that they are available for on-time delivery of brake equipment. WABCO is booked well into the year and production and employment are the highest they have been in the 1970s.

• **New car pool.** Probably most significant in the 1974 car market will be the emergence of a new pool of general service box cars which is to be operated by Trailer Train in the same way as its existing flat-car fleet (RA, Dec. 31, 1973, p. 13). The goal is improvement in equipment supply and utilization: the initial 10,000 50-foot cars (and subsequent equipment, as well) need not be returned to any home road but may be transferred by TTX to points where they can handle new loads.

The new pool is to be financed by the guarantees of a number of large railroads with good credit ratings, but all roads will share in the benefits of the pool operation. Because of the current backlog in carbuilder shops (approaching 60,000 on Dec. 1, 1973), it is not expected that the first of the pool box cars could go into service until very late in 1974 and probably not until 1975.

• **Private owners.** The long-term trend to greater ownership of freight cars by private car lines and shippers continues. North American Car, for instance, has just completed its second record year, and productive capacity for tank and covered hopper cars is committed throughout all of 1974. R.B. Oppenheimer, executive vice president, says 1974 will be another record setter for North American with its newly built

liquid and dry-bulk cars being placed primarily under full-service leases. "Through careful anticipation of requirements, we have been able to procure parts and materials to fulfill our commitments," he adds.

Union Tank car recently ceased construction of barges at its East Chicago, Ind., plant, in order to achieve an output of 60 tank cars per week because this market is at an all-time high. "We are experiencing the strongest market in modern times for leased tank cars," reports Jack R. Kruizenga, UTC president. These orders were the highest in Union Tank's history in 1973 and more than half were placed in the final four months. It is expected that 3,000 tank cars will be produced in 1974, about 80% for the leased fleet and the remainder for sales to UTC industrial customers.

Most 1974 production will be tied directly, or very closely, to transportation of energy related products. "Inquiries from chemical and petrochemical shippers remain consistently higher than preceding years, in spite of critical shortages of certain key petroleum feedstocks," Kruizenga adds. "A large part of our inquiry interest is from industries operating at capacity which are upgrading their existing tank-car fleets by replacing smaller, less efficient cars with jumbo cars providing the lowest transportation cost per gallon carried. The smaller cars being replaced very quickly find users."

ACF Chairman John F. Burditt, citing the energy shortage as a reason for increased public appreciation of the rail mode, feels that freight car building may well become less cyclical than it has in the past. ACF is a major builder and lessor of tank and freight cars and its Shippers Car Line has been experiencing continuing active demand for new equipment; older cars which had been idle a year ago are now all in great demand. Railroad orders are a major reason for ACF's expectation that 1974 will be a very good year, although shortages could cause some problems. Burditt expects that total new car deliveries in 1974 will reach 65,000.

ACF President Henry A. Correa has noted that the traffic record set by railroads in 1973 has also increased demand for rail car parts and cushioning units. He expects this business will remain strong in 1974. Demand for Center Flow covered hoppers cars has been particularly brisk and orders for tank cars are higher than in any recent year. ACF's backlog also reflects strength in both standard box cars and flat cars—especially those used in piggyback service.

Pullman-Standard entered 1974 with the greatest peacetime backlog in its 107-year history and expects "this will be a banner year following on the excellent year we had in 1973," according to Elwyn T. Ahnquist, president. He said that the combination of a booming economy and the emergence of the U.S. as the bread-basket for much of the world has triggered a turnaround in carbuilding, where P-S accounts for more than 25% of the production.

More than 60% of Pullman's output in 1973 was represented by covered hopper cars, the most efficient vehicles to move grain. Piggyback flat cars were a distant second and, Ahnquist noted, "there were times, especially in the early part of the year, when we could have used orders for box cars." Box-car orders have picked up and the recently announced plan "for a railroad-owned entity to acquire a fleet of 10,000 general-purpose box cars is good news to all carbuilders."

The P-S Butler, Pa., plant, which turns out mostly covered hoppers, is sold out for 1974. By midyear the piggyback cars which once were produced exclusively at Butler will all be turned out by the plant at Bessemer, Ala. Butler is then to start up a line of coal cars, which will be in addition to covered hoppers that are to continue rolling out at a record rate.

P-S has been designing a new family of coal cars—drop bottom hoppers and gondolas—which are to be in production late this year. All versions will be of 100-ton capacity, aimed at railroad and utility-owned unit train service. "Based on our order books and the prospects for coal-car orders," Ahnquist calculated, "business should be brisk indeed beyond 1974, even without taking into account the aid railroads are expected to obtain—especially the Northeastern roads—from Washington."

Pullman's fast-growing PTLX subsidiary is now up to 13,000 cars, nearly two-thirds of which are covered hoppers in grain service. "Only one railroad has a larger fleet of modern grain cars," says Arthur L. Berry, president of Pullman Transport Leasing. "No end to the strong demand for cars to move grain and fertilizer is in sight," predicts Berry. "We expect to add at least 1,500 more covered hoppers to our own fleet in 1974."

Orders for new cars are now being booked into 1975 and for reconstructed cars into 1976 by United States Railway Equipment. Ralph E. Bell, vice president sales, does not anticipate any cancellation of orders even if there is a downturn in the economy, since he expects railroads would be affected less than other industries. USRE has been producing insulated and general service box cars, covered hoppers and coil steel cars. It has turned to other builders for additional specialized equipment for its lease fleet. While it is not expected that parts shortages will have much effect on this year's production in its three plants, "prices remain a mystery," according to Bell. "We are quoting on an escalated basis, as to material and specialty items, which is the only course open to the carbuilders."

Thrall has a backlog extending through 1974 and well into 1975. Delays in delivery of steel and specialty items have "become a way of life," reports C.H. Wright, executive vice president. "We are forced to carry an unbalanced inventory which adds substantially to costs. Other uncontrollable costs eat substantially into the low profit return inherent in carbuilding."

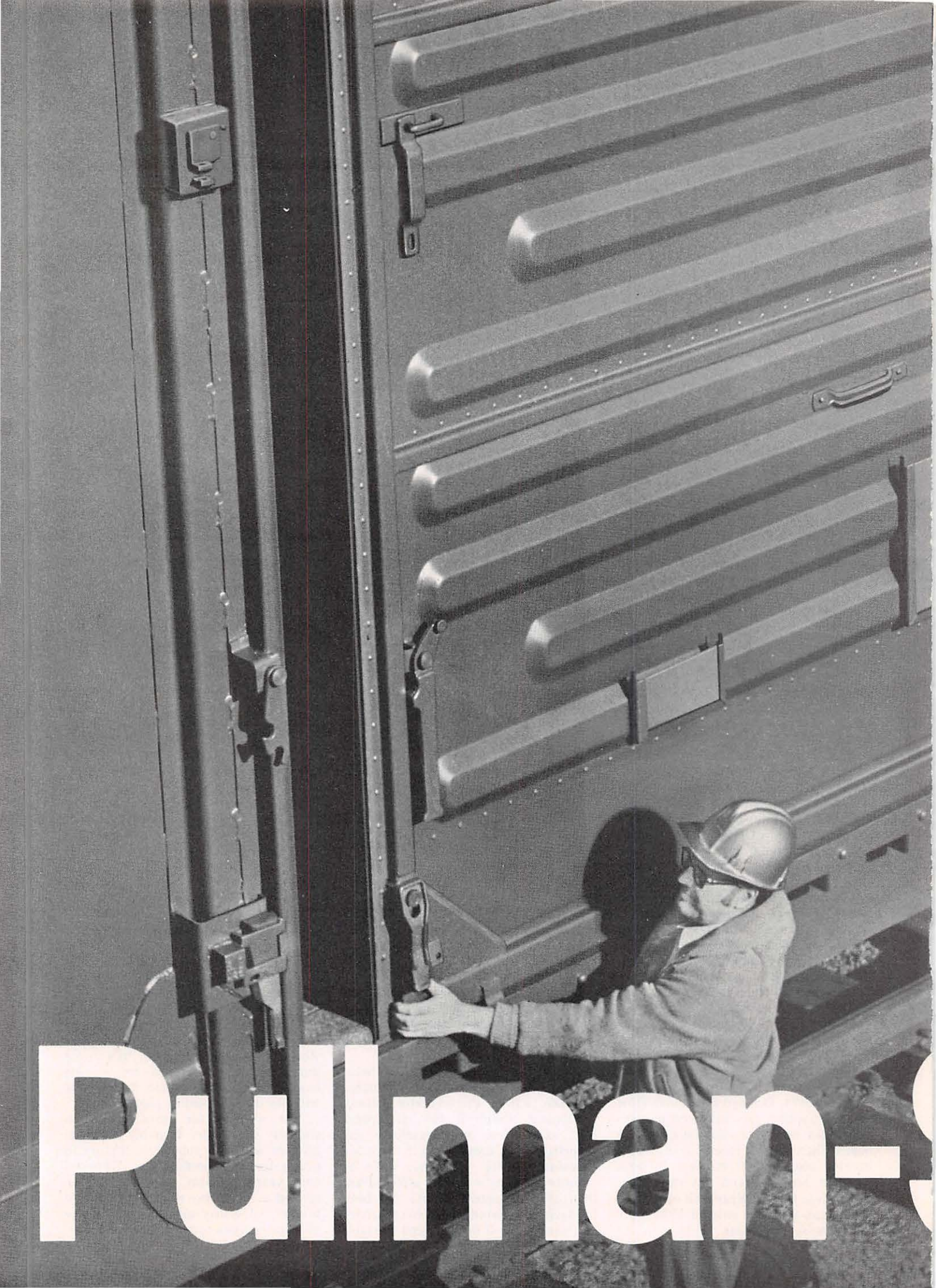
Most of Thrall's orders are for assigned cars which railroads or shippers purchase or lease for specific loads. Scheduled for production are unit-train coal cars, lumber cars, auto-parts cars, gondola cars for steel service and flat cars for loading farm implements.

What about a downturn in the economy? "We do not believe there will be major cancellations as the railroads are not prone to 'scare buying,' and most rely on return-on-investment studies prior to placing orders," says Wright. "Obviously, they are buying for the long term and not just for 1974 and 1975."

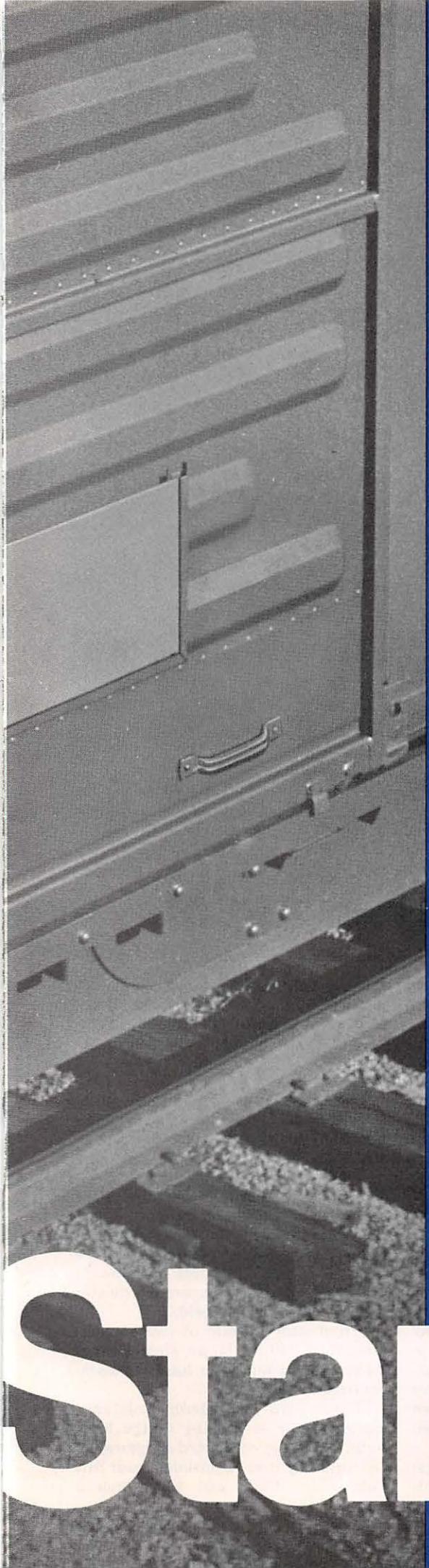
FMC's Marine and Rail Equipment Division has a firm order backlog at its Portland, Ore., plant into the second quarter of 1975. "We are deeply concerned about the railway supply industry's ability to meet the demands of carbuilders for the coming year or so," observes William R. Galbraith, vice president-sales. He notes that there has been some reduction in its capacity in recent years. Repeated shortages have indicated that FMC may have difficulty in meeting schedules and would not expect any order cancellations by railroads, but rather an extension of delivery dates. If shortages do not seriously affect production, 1974 should be a record year at FMC.

The backlog at the Portland plant is primarily box cars of 70- and 100-ton capacity, most with interior lading devices, which, says Galbraith, "is a strong indication that railroads are leaning toward a general-purpose freight car with the intent of lading protection."

The outlook for other builders is similarly optimistic. Probably most significant will be a substantial upturn in orders for coal-handling cars. While recent years probably could be characterized as being the era of the covered hopper, 1974 may well be known as the year of the open-top hopper car. ■



Pullman-S



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Both railroads and shippers have been asking that the sliding door be brought out of the "dark ages." You've asked for a stronger door. You've asked for one that's easier to operate.

That's why when our new box car engineers designed a new door post that's 92% stronger, they kept on going and designed a new sliding door to match.

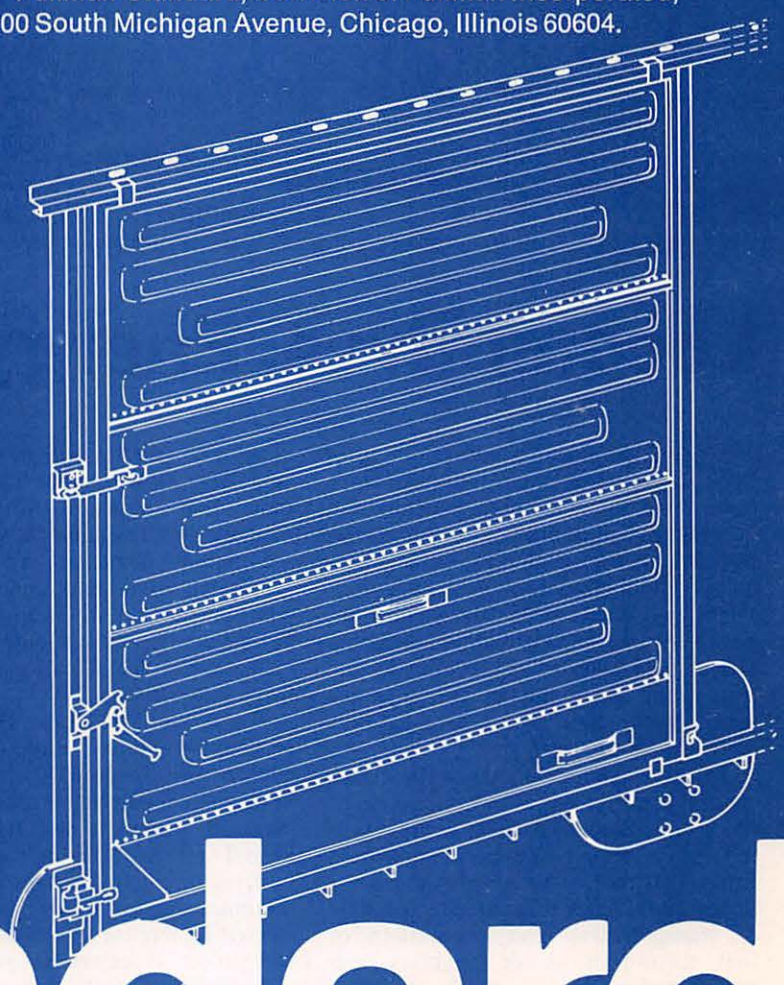
It's strong. New panel embossments in 14-gauge steel give the stability you want, and ¼-inch rivets give extra added strength.

It operates easily. Big 5-inch hardened steel rollers with permanently sealed bearings that never need greasing keep the door rolling easily.

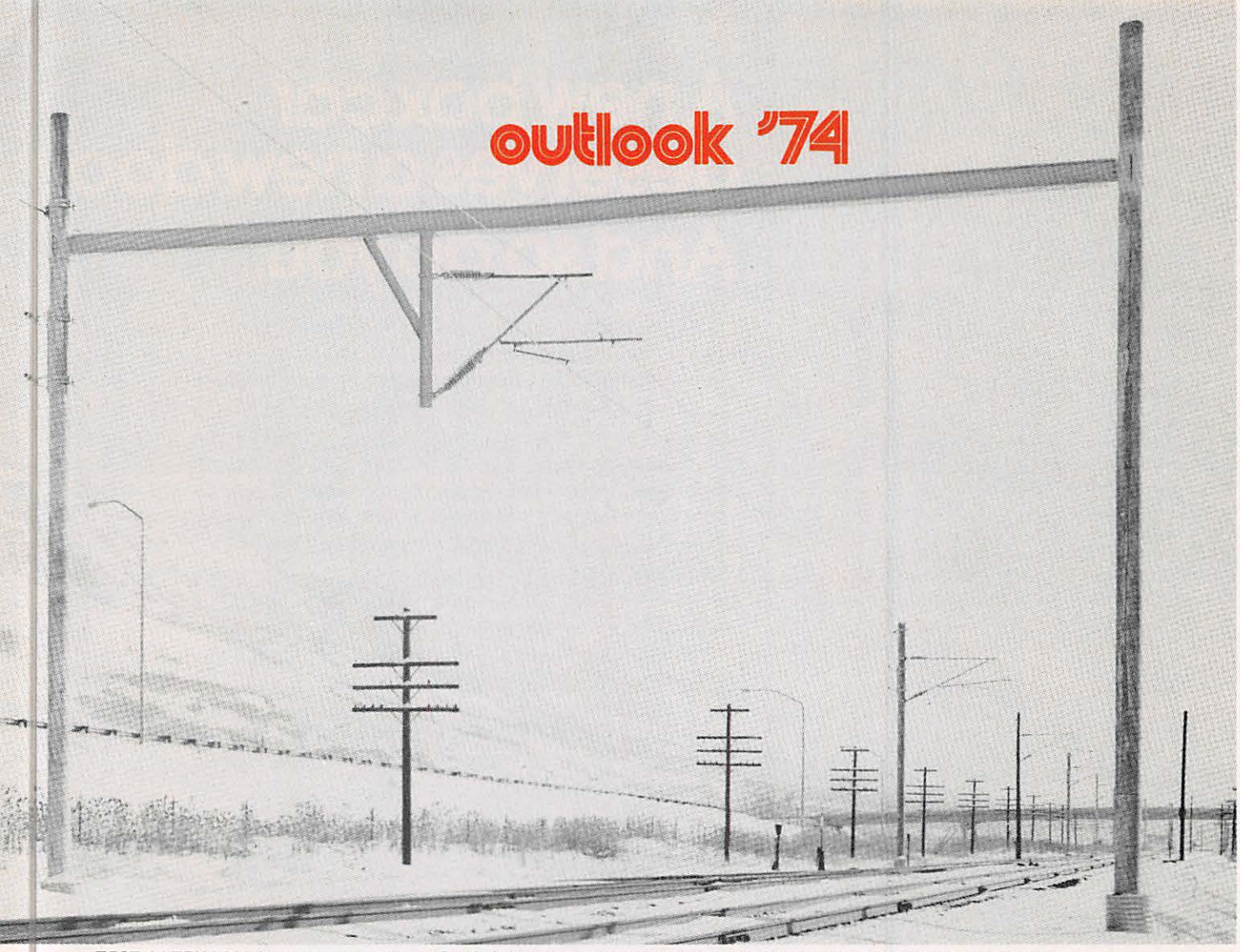
There's a tough new door edge member for positive sealing, a new starter and closure lever for easy opening and closing, and a new anti-pilferage lock meets AAR rules.

Pullman-Standard's new box car deserves this new sliding door. And so do you.

Pullman-Standard, a division of Pullman Incorporated, 200 South Michigan Avenue, Chicago, Illinois 60604.



Standard



TEST CATENARY, just put up over Union Pacific's Utah mainline, is one evidence of growing U.S. interest in electrification.

Locomotives: Energy-crisis asset

One of Napoleon's adages was that "you never shell the enemy general's camp." As national fuel problems have become more critical, one could but wonder whether the railroads have adequately publicized their fuel economy, as compared with their competitors. Or, have they subscribed to the Napoleonic dictum and been reticent about letting the public know about the frugality with which they utilize the nation's scarce fuel resources?

In the current fuel crunch the diesel-electric locomotive has to rank as one of the country's primary assets. As reported by a recent federally sponsored study, this motive power uses a quarter the fuel of a truck to produce a ton-mile of transportation and one-sixtieth of that utilized by an air freighter. Even before today's energy pinch, the locomotive's minimal contribution to air pollution was unappreciated by government agencies which have been making it a target of stack emission controls all out of proportion to its impact on the environment.

And if America must return to a coal standard, there is no transportation mode that could use the power generated by this fossil fuel like the electric locomotive. When a study for the Congressional Joint Economic Committee recommends "more rational pairing of energy sources with energy consumers," coal and rail electrification seems like an inevitable marriage.

Thomas P. McGuiness, Penn Central's recently appointed director of energy conservation, has noted that the road's newly launched program for systemwide saving of kilowatts and BTUs has been kicked off by utilizing "electric locomotives to the full extent of the fleet to minimize use of diesels in the eastern electrified territory." Some of PC's electric power suppliers do generate their kilowatts with fuel oil, but other utilities feeding PC's catenary have never switched from coal, and some oil-fired generating stations are being reconverted.

● **Economizing on economy.** Typical of the approach of all-diesel railroads has been the conservation program undertaken by Seaboard Coast Line, Louisville & Nashville and Clinchfield. Starting with the basic economy of the diesel engine, SCL and its associated lines are:

—Maximizing utilization of diesel locomotives to produce the most transportation for diesel horsepower operated.

—Adjusting freight-train speeds to achieve maximum fuel economies for the territory and terrain traversed.

—Discontinuing the idling of diesel engines for extended periods (a practice not easy to put into effect for railroads operating in less temperate climates than SCL/L&N/Clinchfield.

—Reducing pressure of steam generators from 200 to 150 psi when weather makes this adequate for heating passenger trains.

These are short-term solutions. Union Pacific is looking at the long-term. It has just completed a segment of test catenary over its mainline near Salt Lake City, Utah, and will install a

GE's Full Line of Diesel Electric Locomotives are...

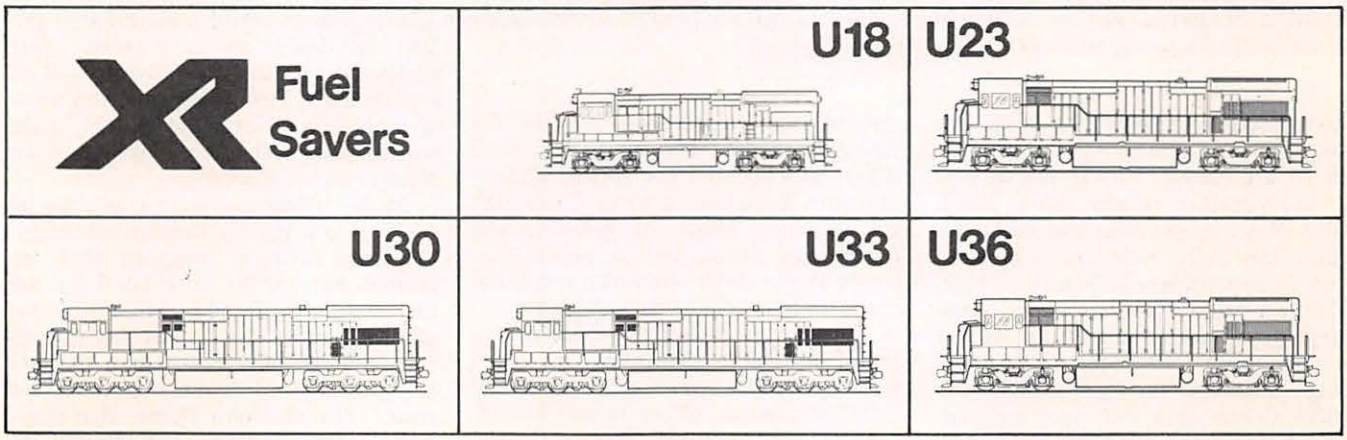
XR FUEL SAVERS

As a long-time advocate of a balanced transportation system for this country, General Electric supports U.S. Railroads as they highlight the effectiveness of moving freight via rail to save vital fuel.

GE's full line of diesel-electric XTRA RELIABLE FUEL SAVER LOCOMOTIVES also are helping Railroads make more efficient use of their important fuel.

GE's four-cycle, turbocharged diesel-electric locomotives are the most efficient in service today. For example, utilizing an AAR approved duty cycle with an availability factor of 90%, a GE 6600-hp locomotive consist would operate about 7,884 hours a year. Two GE U33Cs, each of which utilizes only 67.2 gallons per hour, operate on 1,059,610 gallons of fuel a year. Compared to published data on a non-turbocharged 6000-hp locomotive consist on the same duty cycle, this GE U33C 6600-hp consist would save 205,800 gallons of vital fuel a year and provide 10% more useful work. In addition, a 6000-hp consist of two U30Cs on the same AAR approved duty cycle would save 284,600 gallons a year.

Contact your General Electric locomotive representative for more information on how your Railroad can save critical fuel by utilizing GE's turbocharged FUEL SAVER LOCOMOTIVES.



General Electric Company
Transportation Systems Business Division
Erie, Pennsylvania 16501

GENERAL ELECTRIC

117-80

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ELECTRO-MOTIVE production in 1973 was concentrated on six-axle, six-motor SD40-2 units, such as this for BN, and on 2,000-hp GP38-2 four-axle units.

MLW INDUSTRIES built primarily medium power four-axle units, but did turn out such M630 BC units as these with CN's newly designed Crew Comfort cab.

GENERAL ELECTRIC delivered its first 1,800-hp turbocharged units in 1973 to SCL. Popular also are 2,300-hp U23s and six-motor units of 3,000-hp and more.

second stretch in Wyoming in a few months. Both these short stretches are part of the road's study of electrifying its heavy-traffic routes from North Platte, Neb., to Salt Lake and Pocatello, Idaho. The Utah section is to be energized to appraise the influence of high-voltage electrification on communications and signal circuits. As was the case with test catenary installed along Canadian Pacific's mainline in British Columbia a year ago, maintenance requirements and problems will be studied by UP.

High-voltage, 50,000-volt alternating current, is about to get its first routine test as the transmission system for Arizona's Black Mesa & Lake Powell which is scheduled for formal dedication in a little over a month. The high voltage is a means of reducing the number of substations, a point illustrated by the single one which serves the entire 78-mile coal hauler in Arizona.

Other roads are looking at electrification. Burlington Northern has been working with General Electric on several mainline studies. Other recent investigators have included Illinois Central Gulf, Missouri Pacific, Santa Fe, Southern and Southern Pacific.

● **Prototype electrics.** Electro-Motive, in cooperation with Sweden's ASEA, will build a pair of prototype electric locomotives aimed at developing motive power for American service if electrification should come. While EMD has doubts, it intends to be ready.

More immediately, EMD looks at other uncertainties, "the depth and duration of the energy situation, inflation, shortages of materials and restrictions on the economy imposed wage and price controls," says H.L. Smith, GM vice president and EMD general manager. "Factors such as these make it more difficult than usual to forecast with certainty the market outlook.

"Railroad purchases have been sustained at remarkably high levels during the past several years as the carriers moved to modernize existing motive power fleets and to add horsepower necessary to accommodate the dramatic growth in total revenue ton-miles. With their impressive advantage in efficiency in overland freight hauling," Smith continues, "railroads can expect additional demands for freight services as the nation seeks to conserve use of critically scarce petroleum."

With this he expects demand for diesel motive power to be comparable to 1973.

General Electric's locomotive production in 1973 was better than previous years despite a slow start. Outlook for motive power from GE in 1974 "is bright," according to O.F. Vea, general manager of GE's Locomotive Products Department. Some of GE's production in 1975 is now committed, as railroads have looked to materials shortages, growing traffic, and unit trains which are scheduled to go into operation in the future.

"The fuel crisis," says Vea, "may have more far reaching effect than any other factor. Use of rail, rather than truck, can only increase." GE is finding its new 1800-hp turbocharged unit an increasingly popular alternative to rebuilt older units. A fewer number of high-horsepower units save fuel. One such study showed that a pair of 3,300-hp units could save 206,000 gallons of diesel oil in a single year compared with an alternative consist of smaller units. Turbocharged locomotives save about 10% or more in fuel under normal duty cycles at sea level and even more at higher altitudes.

MLW Industries sees a substantial backlog continuing throughout 1974. "Present evidence suggests that increased rail traffic, stimulated by the fuel economy offered by rail transportation, will more than offset any general economic slowdowns that may develop domestically and in our export market areas," reports John Byrne, vice president, transportation. The supply of basic steel, forgings and castings will continue to have a controlling influence on MLW's production planning. ■

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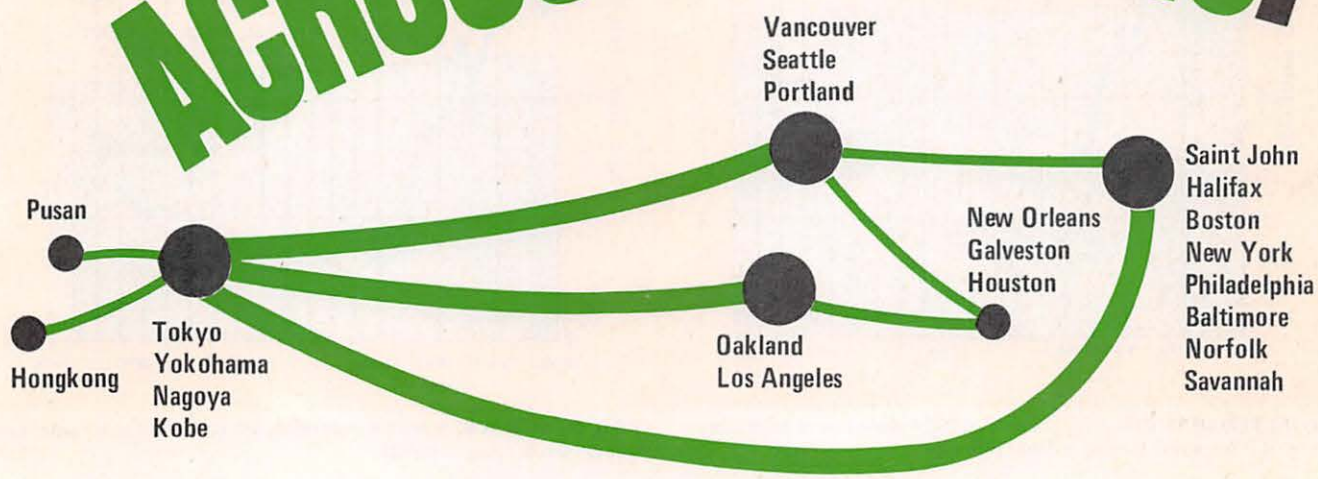

East Coast, West Coast, Gulf area; Japan, Pusan or Hongkong – we ship your containers fast and safe. At present at your service are 3 main routes, 2 feeder routes, plus inland Mini-Land Bridge service.

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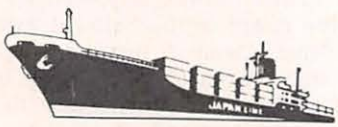
Both routes feature **Mini-Land Bridge Service** to the U.S. Gulf area, and U.S. Atlantic ports.

The New York Route: between Japan and the East Coast of the U.S. and Canada via the Panama Canal, your goods take a short 16 days, vessels leaving at 7 day intervals.

And 2 full-container feeder routes: they connect Kobe in Japan with Pusan in Korea and Hongkong.

We can tell you more about our excellent service – so let us know about your special container shipping project, and we'll take care of it. In a very personal manner, as always.



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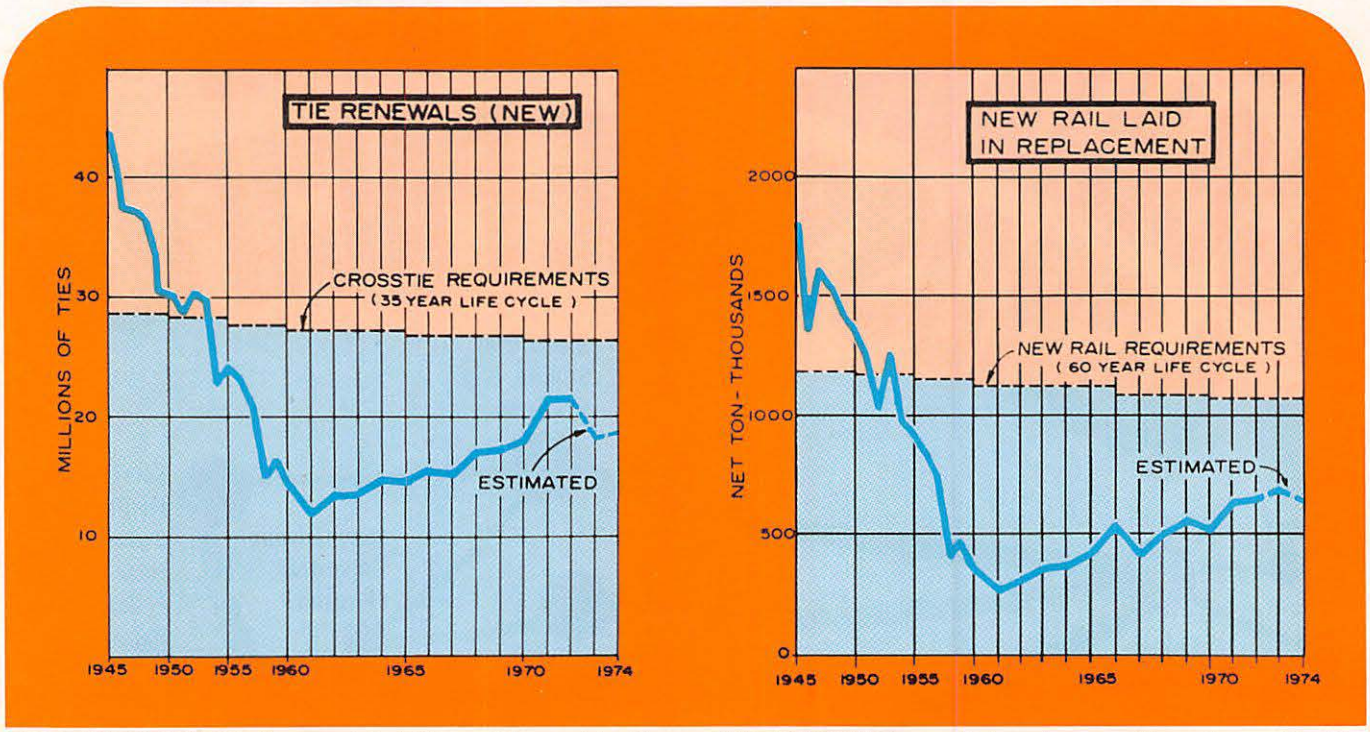


PROJECTED UPTURN in tie renewals in 1974 would be considerably greater if it were not for the crosstie shortage.

RAIL RENEWALS, as are tie insertions, are still running considerably below actual requirements.

Shortages cloud the M/W picture

By MERWIN H. DICK
Engineering Editor

While the activities of the M/W forces are expected to remain at relatively high levels in 1974, the final outcome will be determined by developments whose effect cannot be assessed at this time. They include:

—Possible shortages of materials, particularly crossties, and including the fuel and lubricants needed for operating M/W machines.

—Effect on the M/W activities of bankrupt northeastern lines of "interim" funds to be made available under the Regional Rail Reorganization Act of 1973, including $85 million for "emergency assistance" and $150 million for track maintenance and other purposes.

—The Amtrak Improvement Act of 1973 which could result in substantial expenditures for track improvements on routes used by Amtrak trains.

—A recent award of the National Arbitration Panel, which could have the effect of requiring some roads with Amtrak routes to spend more money for track maintenance on tracks carrying Amtrak trains.

● **Problems of forecasting.** The forecasting of M/W activities for the coming year, never easy, is rendered even more difficult this year by the legislation and the arbitration award included in these developments. For example, it's far too early for even maintenance people on the bankrupt northeastern lines to predict what effect the "interim" funds will have on their activities, if, in fact, any part of this money should become available at all during the year. Also indeterminate at this time are the effects of the Amtrak Improvement Act and the award of the National Arbitration Panel. About all that can be said at this stage is that, because of these developments, some roads may find it necessary to expand their M/W programs during the year beyond those they were projecting as 1973 was coming to a close.

It is these projections that have been used in arriving at the forecasts of M/W activity given in this article. As in past years Railway Age requested the top engineering officers of all Class I railroads to furnish estimates of the tie and rail renewals planned for 1974, and the mileage of track that was scheduled to be surfaced. Based on replies received from nearly all of these roads it is estimated that they will insert a total of about 19 million new crossties for renewal purposes this year, or about 600,000 more ties than the estimated renewals for 1973.

● **Effect of tie shortage.** The tie renewals projected for this year doubtless would be considerably higher—perhaps as much as a million ties higher—if the railroads could obtain all the ties needed.

In submitting their projections of tie renewals the chief engineers were asked to indicate if their estimates gave consideration to the possible effect of a tie shortage. While some of those replying indicated that the effect of a tie shortfall had been included in their estimates, many did not reply to the question. For this reason it was not possible in such cases to determine whether the projection given had actually been pared down because of a shortage of crossties or whether it was an expression of the number of ties the road was prepared to insert in track if they could be obtained.

It was surprising, in view of the much-publicized tie shortage, that a considerable percentage of the roads apparently expect to obtain their crosstie requirements for the year. A top officer who reflected this viewpoint explained his reasoning in these words:

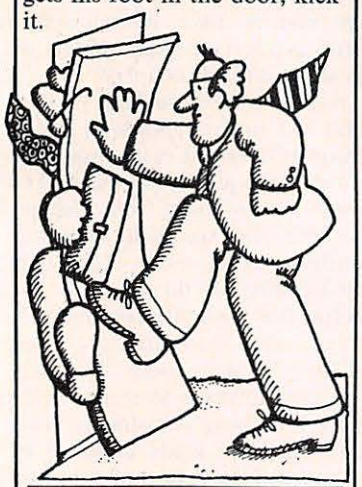
"We anticipate possible difficulty in

A Mo-Pac Guide: Getting the most out of a transportation salesman.

For too many years, you've had to face the transportation salesman alone. But now you have the Mo-Pac Guide as a yardstick to see if he measures up to everything a good transportation salesman should be, and what you can do about it if he isn't.

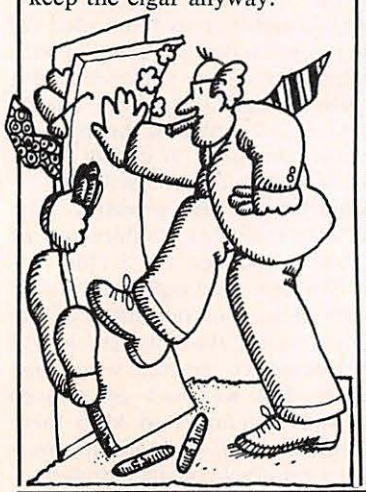
1. INSIST ON AN APPOINTMENT.

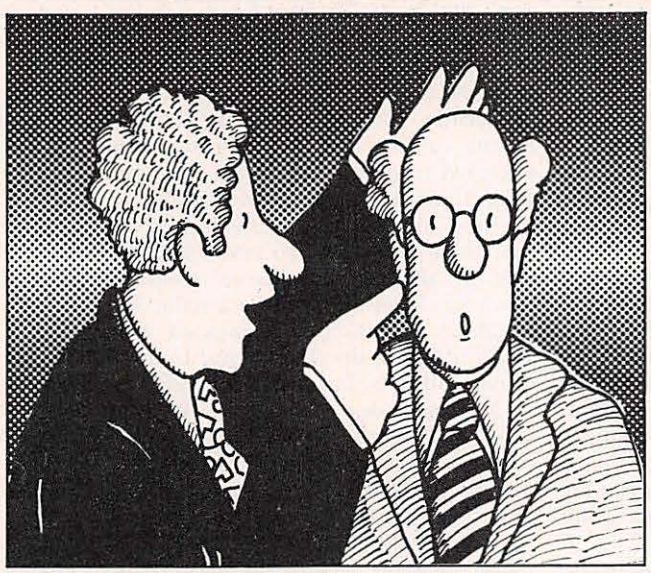
Be kind, but firm. If a salesman without an appointment gets his foot in the door, kick it.



2. WATCH OUT FOR HAVE-A-CIGAR & HAVE-YOU-HEARD-THIS-ONE OPENINGS.

If a smoke and a joke is all the salesman has to show you, show him to the door. But keep the cigar anyway.



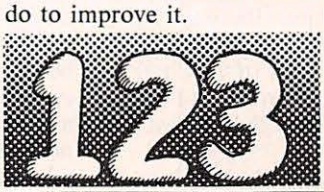


3. FIND OUT IF HE KNOWS HIS BUSINESS

Just ask him a few pointed questions on what's happening in the transportation industry and about new advances his company is making in areas that relate to you. For example: a) What is his company doing that his competition can't do? b) How much has his company spent on capital improvements and new equipment which could serve to help your company? c) If tin whistles are made of tin, what do they make fog horns out of? Throw this one in to see if he's listening at all.

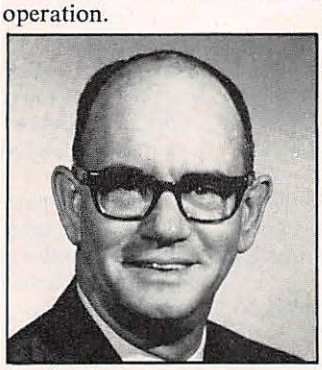
4. IF HE KNOWS WHAT HE'S TALKING ABOUT, TELL HIM YOUR DISTRIBUTION PROBLEMS.

Don't beat around the bush. Tell him what service you're getting now (from his company and others) and what you like and don't like about it. Now ask him what he can do to improve it.



5. NOW . . . LET HIM TALK

You're a professional at your job. If he's a pro at his, he should be able to offer you some good workable solutions to your distribution needs. He may be able to save you time and money (which is the name of the game) with improved services, new routes, modes, scheduling and methods of operation.



Joe Austin

Follow all the above rules and you'll be able to get more out of the transportation salesman knocking at your door. But Joe Austin, Mo-Pac's vice-president, traffic, has another idea.

"After all of this, it becomes rather obvious that the easiest way of getting the most out of a transportation salesman is to get the right man in the first place. We think that man is the one from Mo-Pac, naturally, and we're making sure of it.

"Not only do we back him up with our 17 shipper services on our 12-state, 12,000 mile Midwest, South and Southwest territory, but we make it a point to train him like no other transportation salesman you'll meet.

"All Mo-Pac salesmen go through a specially structured, continuous training program. Each year we send our men, eight at a time (to assure personalized attention) to traffic sales seminars where they learn and relearn their business.

"We encourage our men to pursue their education on their own: to attend college in the

evenings, to study under the AST&T program, and to prepare for certification as an ICC practicioner.

"We'd like to suggest that when the Mo-Pac representative calls for an appointment, you see him. We believe you'll be impressed with his expertise in his field.

"You see, we figured if we did the most for our salesmen, they could do the most for you."

mo-pac

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Texas & Pacific Railway
Chicago & Eastern Illinois R.R.
Missouri Pacific Truck Lines
Texas & Pacific Motor Transport

The big problem for track officers: Prying enough money loose from management

obtaining our crosstie needs for 1974. However, efforts to find additional sources are expected to produce sufficient ties for our 1974 program." Further inquiry develops the fact that these "additional sources" are being uncovered only at the expense of considerable maneuvering. It is known, for example, that the road is actively exploring the possibility of obtaining ties from foreign sources. Another possibility under consideration is the use of concrete ties in constructing new yard and industry tracks, thereby making more wood ties available for use in main tracks.

While another chief engineer noted that "crossties are becoming increasingly harder to obtain and the price continues to go up," he added that the road "expects to be able to obtain enough crossties to meet our requirements." This reply seemingly stems from the reasoning that crossties can be had if the railroads are willing to bid high enough to get them.

There were, on the other hand, those to whom the crosstie shortage is stark reality. A chief engineer in this category explained his problem in these words: "The crosstie renewals budgeted for 1974 are greatly affected by the inability to obtain all the crossties we require. The total would approximate 1,500,000 if we could get the ties." But inability to obtain its full requirements has forced this road to budget the insertion of only a million ties in 1974, or 500,000 under what the chief engineer feels is needed.

The chief engineer of another, but smaller, road, said: "The estimated tie renewals for 1974 (35,000) are based upon the actual requirements for maintenance. Due to shortage of ties in 1973, our road fell 5,000-8,000 ties short of our program. There is every indication that we will fall 8,000 to 10,000 ties short of our 1974 program because of our inability to acquire the ties."

Why is it that some roads expect to fall so far short of their actual tie requirements for 1974 while others appear confident that they will be able to fill their needs, albeit with a degree of difficulty and planning at least in some cases? One explanation is that the crosstie situation may vary widely between different parts of the country. Another possibility is that some engineering departments are regarding the prospects for obtaining crossties with unwarranted optimism.

A factor in the crosstie picture for 1974 is that the number of secondhand ties to be inserted is expected to be sharply higher than in 1973. Figures on the installation of secondhand ties were submitted by 27 roads. These lines expect to insert 653,500 secondhand ties this year, compared with 375,000 such ties in 1973. The figure for last year was in turn substantially higher than the 245,000 SH ties inserted by the same roads in 1972.

● **Decline for rail renewals.** Rail renewals, unlike crosstie insertions, are expected to decline somewhat this year. Projections based on figures submitted by most of the Class I roads indicate that these roads plan to insert 640,000 tons of new rail for renewal purposes this year. While this will be a reduction of about 50,000 tons compared with 1973, it will be the third largest tonnage of new rail to be installed since 1957.

Another index of M/W activity—the mileage of track surfaced—is expected to show a moderate increase this year. Figures furnished by 33 roads indicate they plan to surface 41,240 miles of track in 1974. Last year these same roads surfaced 39,320 miles of track. Thus, following a slight decline in 1973 in track surfacing, this activity in 1974 is expected to resume the uptrend that has been in evidence from year to year ever since this magazine began to compile such figures many years ago.

● **Cross currents in 1973.** M/W activity in 1973 came under the influence of various cross-currents, including retrenchment, price increases and, at least in the case of crossties, a shortage of materials. Again on the basis of reports furnished by the Class I roads it is estimated that these roads last year inserted about 18,600,000 new ties in their tracks for renewal purposes. This was a reduction of 1,600,000 ties, or about 8%, below the 20,200,000 new wood ties inserted by the Class I roads in 1972.

Doubtless, part of the decrease in tie renewals that took place last year can be attributed to the crosstie shortage which began to surface during the year. Another factor, no doubt, were cutbacks forced by management which, in its efforts to deal with the squeeze produced by rising wages and inadequate raises in freight rates, had to look for ways to reduce the cash outflow.

Insertions of new rail for renewal purposes last year fared relatively somewhat better than ties. Railway Age's estimate is that the Class I roads inserted about 690,000 tons of new rail in 1973. This was up from 664,410 tons laid in 1972, and was the highest for any year since 1957.

Because of the relatively high level of M/W activity last year, coupled with the continuing inflation in wages and prices, it was inevitable that total expenditures for maintenance of way and structures of Class I railroads would move up to an all-time new high. In so doing these expenditures went above the two billion dollar mark for the first time in history. Based on official figures for the first nine months, it is estimated that the Class I lines spent $2.037 billion for MW&S for the entire year. This figure represents an increase of 6.1% compared with the $1.917 billion spent in 1972.

● **Probing engineers' minds.** Bare figures are only the surface manifestation of activity. They take on significance only when they are analyzed in terms of actual needs. One way to determine if the present-day level of M/W activity is adequate is to search the minds of engineering officers. To this end Railway Age editors have interviewed a broad cross section of such officers on railroads all around the country.

The results were revealing. A fact that stood out in the interviews is that engineerings officers on many roads are having to struggle just as hard as ever to pry enough money loose from managements to keep their tracks up to reasonable standards. And, more often than not, they are failing to do so.

A factor that complicates these efforts is the heavy loads that are being imposed on the tracks today. Not only is total freight tonnage at record levels but the track is being punished as never before by the axle loads imposed by 100-ton cars and the action of six-wheel trucks on locomotives.

The accelerated wear thus imposed on the tracks logically should call for larger M/W expenditures. But the managements on many roads are reluctant to authorize programs of the required magnitude. There may be a variety of reasons behind this attitude but in the interviews conducted by Railway Age editors two stand out: (1) Wage and price inflation, coupled with (2) the inability of the railroads to put freight rate increases into effect that are large enough to counteract the inflation in expenses. On many, if not all roads, the shortfall comes from M/W funds.

● **"Cannibalizing" the property.** The ultimate effect of this combination of factors was capsulized by a chief engineer. "We are carrying more traffic than every before in our history," he said. "This means that our tracks are being subjected to greater wear than ever before. But we can't get enough material and man-hours to keep them properly maintained. What this means is that we are cannibalizing our property." In other words this road is accumulating

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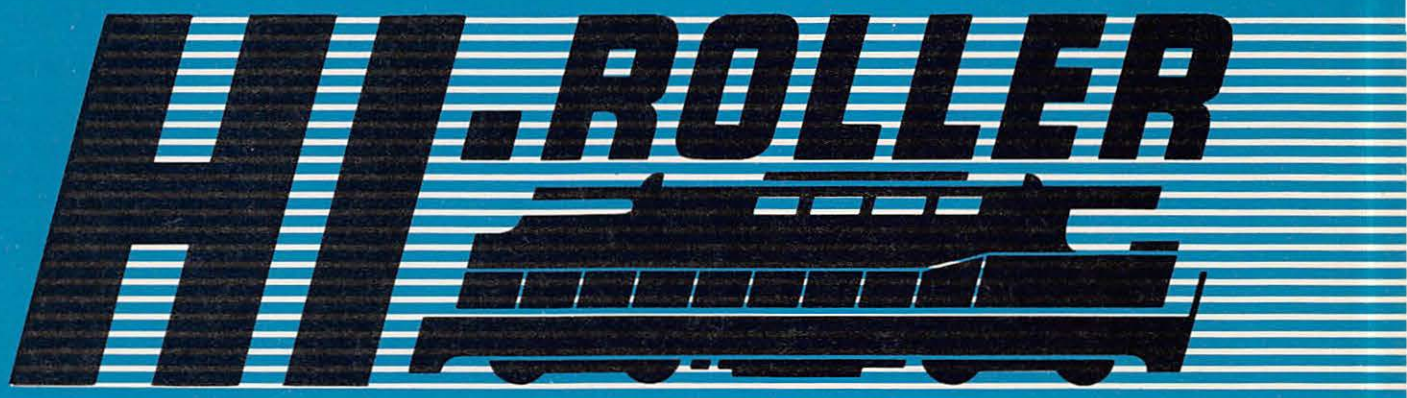

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deferred maintenance during these times of "prosperity" much the same as it does during so-called lean years.

This same theme came through strongly in the interviews with many other top engineers.

Increases in the prices paid for materials used by the M/W forces are part of this picture. Crossties provide an example. Prices of crossties are being forced up as the result of competitive bidding from other users of hardwood lumber. Reports from railroads indicate that price increases of as much as 50% compared with a year ago are common. The result is that the M/W people either have to get more dollars to acquire the same number of ties or they won't be able to buy the quantity of ties they feel are necessary.

The accompanying charts portray the engineers' dilemma better than words. The chart on crosstie renewals shows that not since the early Fifties have tie renewals been anywhere near the level required, assuming a tie life of 35 years. The chart for new rail shows an almost identical configuration, with the insertions continuing to fall far below requirements, assuming a rail life of 60 years.

● **Facets of 1974 picture.** In areas aside from the degree of activity, the M/W picture in 1974 is expected to be characterized by a number of developments, among them:

—Intensified interest in the use of track-measuring cars with onboard computers and means of producing magnetic tape for offboard processing.

—Greater interest in devices for checking such track parameters as gauge and cross-level on a more frequent basis than is possible with the larger cars.

—Larger over-all purchases of M/W machinery as the railroads seek to take advantage of the new and improved types of machines now on the market.

—A greatly expanded track-research program sponsored by the Federal Railroad Administration.

—Intensive activity on the part of equipment manufacturers as they seek to develop more efficient track undercutting equipment for use ahead of ballast-cleaning operations.

As always, M/W men are striving with ingenuity and resourcefulness to keep the tracks up to acceptable standards. If they are not succeeding it's because sufficient funds are not forthcoming from management. Therein lies the big challenge for 1974. ■

Fixed property improvements

For 1974, Class I railroads are planning to spend about the same amount on capital improvements to their fixed properties as they did last year.

Five of the outstanding projects proposed for this year include $100 million by the Long Island, with the assistance of state funds, for elimination of 23 grade crossings; the expenditure of $50 million by the Norfolk & Western for relocating 32 miles of track in West Virginia because of construction of the Bailey Lake flood-control project; an expenditure of more than $29 million by Seaboard Coast Line for expanding its yard at Waycross, Ga.; the investment of $13.5 million by Norfolk & Western for modernizing its communication facilities by installing microwave; and the expenditure of about $12 million by Burlington Northern toward completion of a new computer-controlled classification yard at Minneapolis.

Costwise by categories, new construction and improvements to yards lead with 21%; line changes are next with 18%; and communication improvements follow with 8% of total planned expenditures. More than $8.5 million is to be spent on pollution control.

Following are brief descriptions of major improvement projects authorized for 1974. Because of space limitations only projects costing $500,000 or more are shown.

Atchison, Topeka & Santa Fe: Begin construction on an automatic freight-car classification facility at Barstow, Calif.; complete construction of a timber-treating facility at Somerville, Tex.; complete the construction of a new pier protection and opening-closing control system for the Mississippi River bridge at Ft. Madison, Iowa; construct a 600-foot bridge, consisting of steel girder and beam spans across the Santa Ana river at Colton, Calif., for a second main track; continue the modernization of the westbound hump at Argentine, Kan., to provide a fully automated freight-car classification system; complete improvements to yard facilities at Saginaw, Tex.; and improve and enlarge TOFC-COFC facilities at Corwith, Ill., including new check-point facilities.

Bangor & Aroostook: Construct a new single-story frame office building for housing all departments of the company at Northern Maine Jct., Hermon, Me.

Bessemer & Lake Erie: Complete the installation of 762 feet of steel tunnel liner in Blacksburg tunnel.

Burlington Northern: Modify the yard at 38th Street, Denver, Colo., $3,178,300; make track changes at the west end of Daytons Bluff yard at St. Paul, Minn., $672,000; complete fourth phase of rehabilitation of bridge E-43.4 at Willsonville, Ore., $3,037,400; construct spur track at Hibbing, Minn., $873,000; complete second phase of constructing a new line and spur track from Gillette to Douglas, Wyo., $3,550,000; install microwave facilities between Chicago and Spokane, Wash., $1,761,000; remodel Mid-Continent building to accommodate regional and division forces at Minneapolis, Minn., $1,220,000; construct centralized automated freight-car wheel shop at Havelock, Neb., $2,500,000; acquire land and make preliminary planning for centralized car maintenance shop, system, $600,000; and purchase and install locomotive training simulator, $1,260,000 for first year.

Canadian Pacific: Complete second phase of program to repair and install concrete bridge deck at Vaudreuil, Que., $931,000; construct container terminal at Toronto, Ont., $1,370,000; construct freight terminal building at Winnipeg, Man., $587,000; and complete fourth phase of program to construct 7.7-mile line diversion at the Moca Dam reservoir on the Mountain subdivision, $4,521,000.

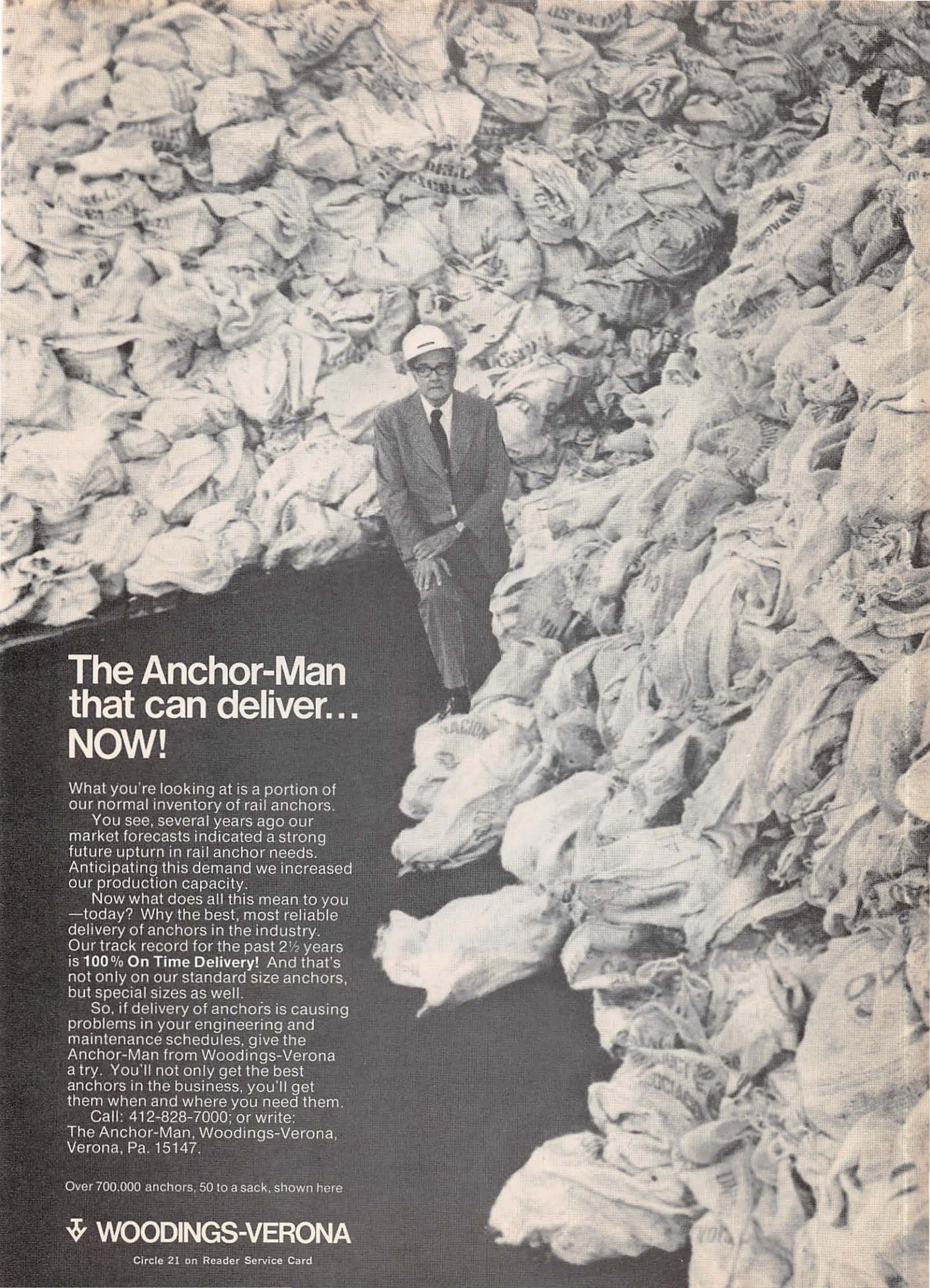
Central Railroad of New Jersey: Eliminate grade crossing by construction of double-track rail bridge at Raritan, N.J., $1,500,000.

Chessie System: Construct new tracks to serve coal mine at Scott Branch, Ky., $2,858,000; consolidate the mechanical department facilities at Chicago, $790,000; consolidate transportation department facilities at Chicago, $695,000; complete restoration and preservation work at the Transportation Museum at Baltimore, Md., $1,100,000; install pollution abatement facilities at Riverside, Md., $900,000; install pollution abatement facilities at Cumberland, Md., $800,000; install pollution abatement facilities at Russell, Ky., $1,165,000; rearrange signaling and install TCS for 10 miles at Pittsburgh terminal, $820,000; rearrange signaling and install TCS for 44 miles on the Richmond, Division, $940,000; and design and install microwave communications system serving major points on system, $7,000,000.

Chicago & Eastern Illinois: Install a push-button or remote-control switching system at Yard Center, Ill.; provide additional TOFC facilities at Chicago; and construct a new depot and M/W building at Villa Grove, Ill.

Chicago & North Western: Construct waste-water treating facility at Oelwein, Iowa, $664,000; and establish a training

(continued on page 50)



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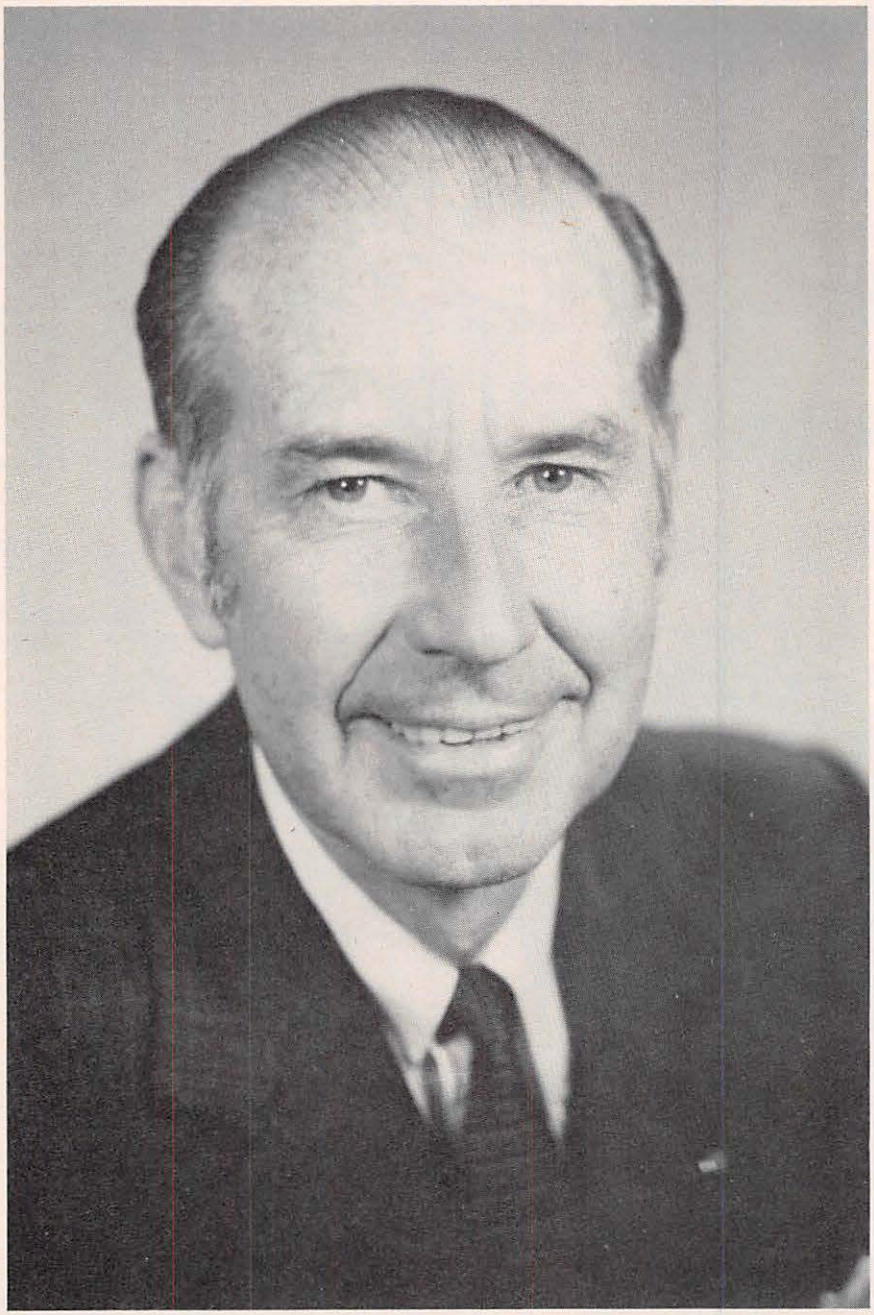

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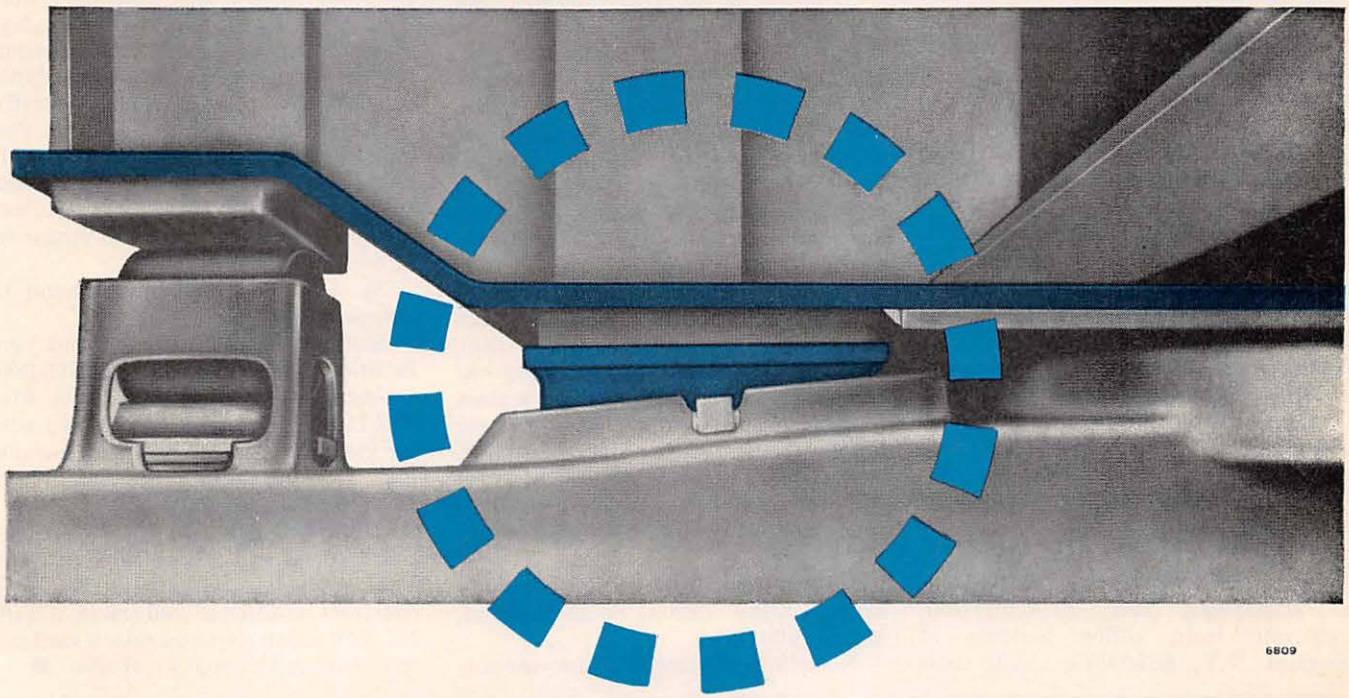

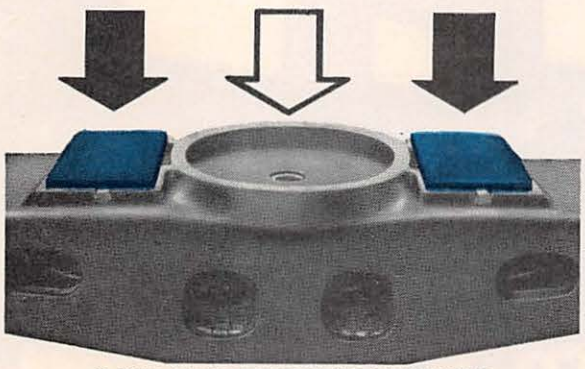

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AT LOW SPEEDS on undulating track, car sway compresses the C-PEP pads which immediately activate the BARBER Truck's increased damping. This resultant C-PEP/instantaneous truck damping reaction increases the efficiency of the loaded car's stabilizing system without compromising the "lighter car / lighter damping" concept.

SPEEDS OVER 55 M.P.H. are often restricted due to truck hunting under empty or lightly loaded cars. The elastomer shear characteristic of the C-PEP pad provides light car truck hunting resistance as a yaw spring—yet does not inhibit the desired tracking ability of the loaded car. This C-PEP yaw spring effect results in an increase of at least 15 m.p.h. in operating speeds before light car truck hunting will occur.

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CABLE: CARTRUCKS

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Fixed property improvements

(continued from page 46)

center at West Chicago, Ill., $500,000.

Chicago, Milwaukee, St. Paul & Pacific: Construct pollution-control facilities on system, $525,000.

Denver & Rio Grande Western: Make major improvements to North Yard at Denver, Colo.; and replace 70 miles of dispatcher line wire from Winter Park to Bond, Colo.

Detroit & Toledo Shore Line: Install computer controls on hump for 20 class tracks at Lang, Ohio, $500,000.

Illinois Central Gulf: Construct a connection track at Springfield, Ill., $1,086,500; expand IMX facility at Chicago, $848,000; expand Intermodal Exchange (IMS) facility at Memphis, Tenn., $750,000; and install pollution-control facilities on system, $1,450,000.

Kansas City Southern-Louisiana & Arkansas: Construct line change at Scroggins, Tex., $1,000,000; and construct new diesel fueling facilities at Pittsburgh, Kan., $700,000.

Long Island: Eliminate 23 grade crossings with assistance of state funds at Massapequa Park, $100,000,000; renovate main office building at Jamaica, N.Y., $650,000; install radio antenna in East River and Atlantic Avenue tunnels, $773,000; make signal improvements between Hall and Nassau towers, $765,000; install automatic crossing gates at 41 highway crossings, $750,000; construct new station facilities at Roslyn, $610,000; construct fire lines in East River tunnels, $900,000; and continue track improvement program, $11,500,000.

Louisville & Nashville: Improve yard signal system and install retarders at Boyles Yard, Birmingham, Ala., $500,000; install signaling for new retarder yard at Strawberry Yard, Louisville, Ky., $1,000,000; install additional units and modify hot-box detector system, $600,000; remodel yard office at Tilford Yard to consolidate L&N and SCL force, Atlanta, Ga., $500,000; expand Boyles Yard at Birmingham, $1,750,000; expand Tilford Yard at Atlanta, $1,000,000; expand Strawberry Yard at Louisville, $1,500,000; expand communication system at Strawberry Yard, $710,000; and replace timber trestle bridge No. 18 near Mobile, Ala., with concrete piling, prestressed-concrete beams, a steel through truss and a steel deck-girder span at each end of swing span, $7,500,000.

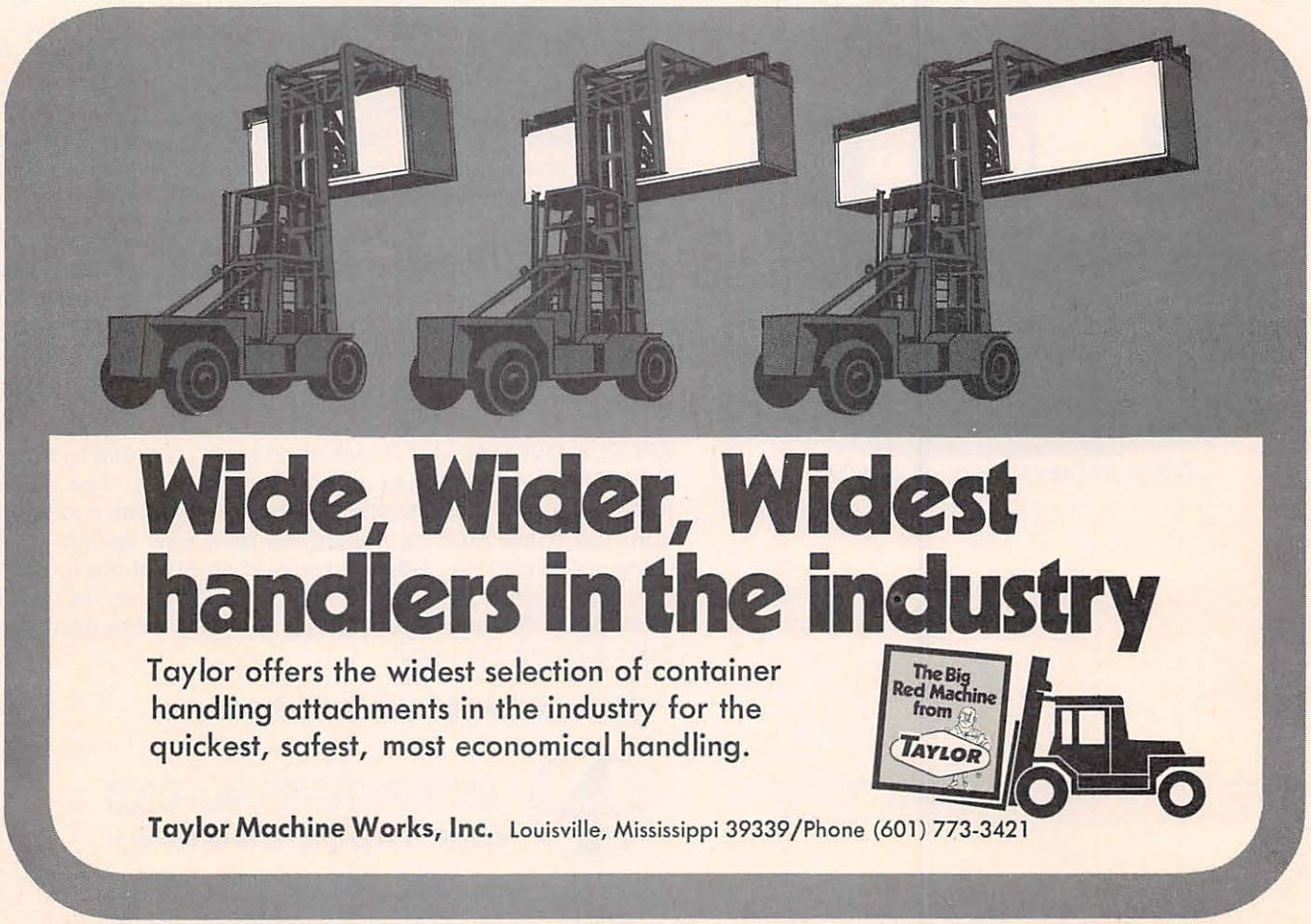
Maine Central-Portland Terminal: Enlarge Rigby Yard in South Portland, Me., $1,000,000.

Norfolk & Western: Continue relocation of 32 miles of track in West Virginia account of construction of Bailey Lake flood-control project, $50,000,000; construct tracks to serve industrial area at Bridgeton, Mo., $650,000; upgrade traffic control from Decatur, Ill., to Jacksonville, $860,000; modernize communications system by installing microwave, $13,489,000; construct support yard at Avon Lake, Ohio, $640,000; extend line from Long Fork Spur to serve coal mine at Sidney, Ky., $4,445,000; construct coal loading tracks for Mapco, Inc., in Martin county, Ky., $613,000; install traffic control from Roanoke, Va., to Pine Hall, N.C., $1,180,000; provide additional TOFC track and trailer parking area at St. Louis, Mo., $1,417,000; and construct new car shop at Roanoke, $2,684,000.

St. Louis-San Francisco: Extend 13 sidings, $1,500,000.

Seaboard Coast Line: Expand yard facilities at Waycross, Ga., $29,315,000; expand yard facilities at Baldwin, Fla., $3,571,000; construct yard and tracks for industrial park at West Jacksonville, Fla., $632,000; and expand yard facilities at Fulco, Ga., $700,000.

Texas & Pacific: Construct five additional tracks and extend three in Addis Yard, Addis, La.; relocate lead track and construct additional yard tracks at Taft, La.; and install a computerized yard and terminal subsystem at Ft. Worth. ■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Our microwave system, for instance. It's the longest privately owned communications network in the U.S.

It gives us over 500,000 channel miles of direct-dial telephone service. And with our $23 million computer system we have a microwave miracle. We can keep in touch with the whereabouts of any one of hundreds of trains and thousands of freight cars and what's in them. At any point along our mainline. At any hour of the day.

And that's not all we're doing to help keep our railroad (and our customers) out front.

Our fast "run-through" trains stop only for crew changes — provide direct service that links major markets throughout much of the U.S. And, we offer you 27,000 miles of trucking routes and some of the finest intermodal facilities in the business.

So if you haven't looked to us lately, don't look back. We're the railroad ahead.

Southern Pacific

— the transportation company that does things first.

outlook '74

$400 million budgeted for C&S

By ROBERT W. McKNIGHT
Contributing Editor

Present indications are that U.S. and Canadian railroads and transit authorities will spend close to $400 million in the system controls area in 1974 in both the capital (equipment purchased) and non-capital (equipment leased) categories. If this projection proves to be accurate, the spending levels of 1973 will be maintained. While communications spending will be down, signaling expenditures are expected to be up.

● **Signaling gains.** Spending on signaling systems will increase about 14% over 1973. In the capital area—that is, new projects—expenditures will approximate $68.7 million, up 12% from 1973. Total signal-system spending for 1974 is estimated at $147.1 million.

Projects most mentioned include centralized traffic control, highway grade crossing protection, safety detectors, and improvements to classification yards including construction of new yards. Preliminary indications are that ctc will hold up well again in '74, with 809 road miles planned for installation. Two major trends are continuing in the ctc area: (1) reverse signaling and full ctc for double-track main lines; and (2) consolidating controls at railroad headquarters or at major dispatching centers. Some ctc consolidations include use of minicomputers for some automatic control and data collection. In this connection, a few roads are studying or implementing an automatic train dispatching system using computer simulation techniques.

Safety detectors continue to attract signal money. Plans to date indicate 57 hotbox detectors will be installed in 1974. This compares with 111 reported installed in 1973.

● **Crossing protection up.** Installations of highway-grade crossing protection equipment will increase over previous years. Preliminary figures show 512 crossings will be protected in 1974 with flashing-light signals either with or without automatic half-gates.

The Federal Highway Safety Act of 1973 provides funds for installation of crossing protective devices, as follows: Specifically, "there is authorized to be appropriated out of the Highway Trust Fund for projects for the elimination of hazards of railway-highway crossings $25 million for the fiscal year ending June 30, 1974, $75 million for the fiscal year ending June 30, 1975, and $75 million for the fiscal year ending June 30, 1973. At least half of the funds authorized and expended under this section shall be available for the installation of protective devices at railway-highway crossings. Such sums shall be available for obligation in the same manner, and to the same extent as if such funds were apportioned under this chapter.

"(c) Funds authorized by this section shall be available solely for expenditure for projects on any Federal-aid system (other than the Interstate System).

"50% of the funds made available in accordance with subsection (c) shall be apportioned to the States in the same manner as sums authorized to be apportioned under subsection (a) (1) of section 104 of the Federal-Aid Highway Act of 1973 and 50% of the funds made available in accordance with subsection (c) shall be apportioned to the States in the same manner as sums authorized to be apportioned under subsection (a) (2) of section 104 of the Federal Aid Highway Act of 1973. The Federal share payable on account of any such project shall be 90% of the cost thereof.

"(f) Funds authorized by this section may be used to provide local government with funds to be used on a matching basis when state funds are available which may only be spent when local government produces matching funds for the improvement of railroad crossings."

● **Trust fund money.** Under the amended definition of the term "construction" as used in this Federal-Aid Highway Act, "elimination of hazards of railway grade crossings" is included. Accordingly, the following funds should be available—at least in part—for grade crossing protective devices:

Under section 104: "(1) For the Federal-aid primary system in rural areas, out of the Highway Trust Fund, $680 million for the fiscal year ending June 30, 1974, $700 million for the fiscal year ending June 30, 1975, and $700 million for the fiscal year ending June 30, 1976. For the Federal-Aid secondary system in rural areas, out of the Highway Trust Fund, $390 million for the fiscal year ending June 30, 1974. $400 million for the fiscal year ending June 30, 1975 and $400 million for the fiscal year ending June 30, 1976.

"(2) For the Federal-aid urban system, out of the Highway Trust Fund, $780 million for the fiscal year ending June 30, 1974, $800 million for the fiscal year ending June 30, 1975, and $800 million for the fiscal year ending June 30, 1976. For the extensions of the Federal-aid primary and secondary systems in urban areas, out of the Highway Trust Fund, $290 million for the fiscal year ending June 30, 1974, $300 million for the fiscal year ending June 30, 1975, and $300 million for the fiscal year ending June 30, 1976."

● **Protective devices up.** The actual amount of funds available for protective

Total 1974 RSC market:

Capital Spending: U.S. Railroads

Communications	$24.4 million
Data processing	1.6 million
Signaling	33.5 million
Total	**$59.5 million**

Capital Spending: Canadian Railroads*

Communications	$26.8 million
Data processing	0.8 million
Signaling	8.7 million
Total	**$36.3 million**

Capital Spending: U.S. and Canadian Transit

Communications	$6.7 million
Data processing	0.2 million
Signaling	26.5 million
Total	**$33.4 million**

Non-capital Spending: U.S. Railroads

Communications	$36.5 million
Data processing	80.7 million
Signaling	50.1 million
Total	**$167.3 million**

Non-capital Spending: Canadian Railroads*

Communications	$40.1 million
Data processing	17.7 million
Signaling	13.1 million
Total	**$70.9 million**

Non-capital Spending: U.S. and Canadian Transit

Communications	$4.0 million
Data processing	8.1 million
Signaling	15.2 million
Total	**$27.3 million**

*Canadian National Telecommunications and CP Telecommunications are communications common carriers in Canada.

Note: Capital spending, as used here, refers only to planned outlays for equipment additions and betterments. It does not include related costs such as installation labor and supervision,. Non-capital spending includes leased equipment costs and expenditures for equipment used in maintenance and replacement programs, not charged to capital accounts.

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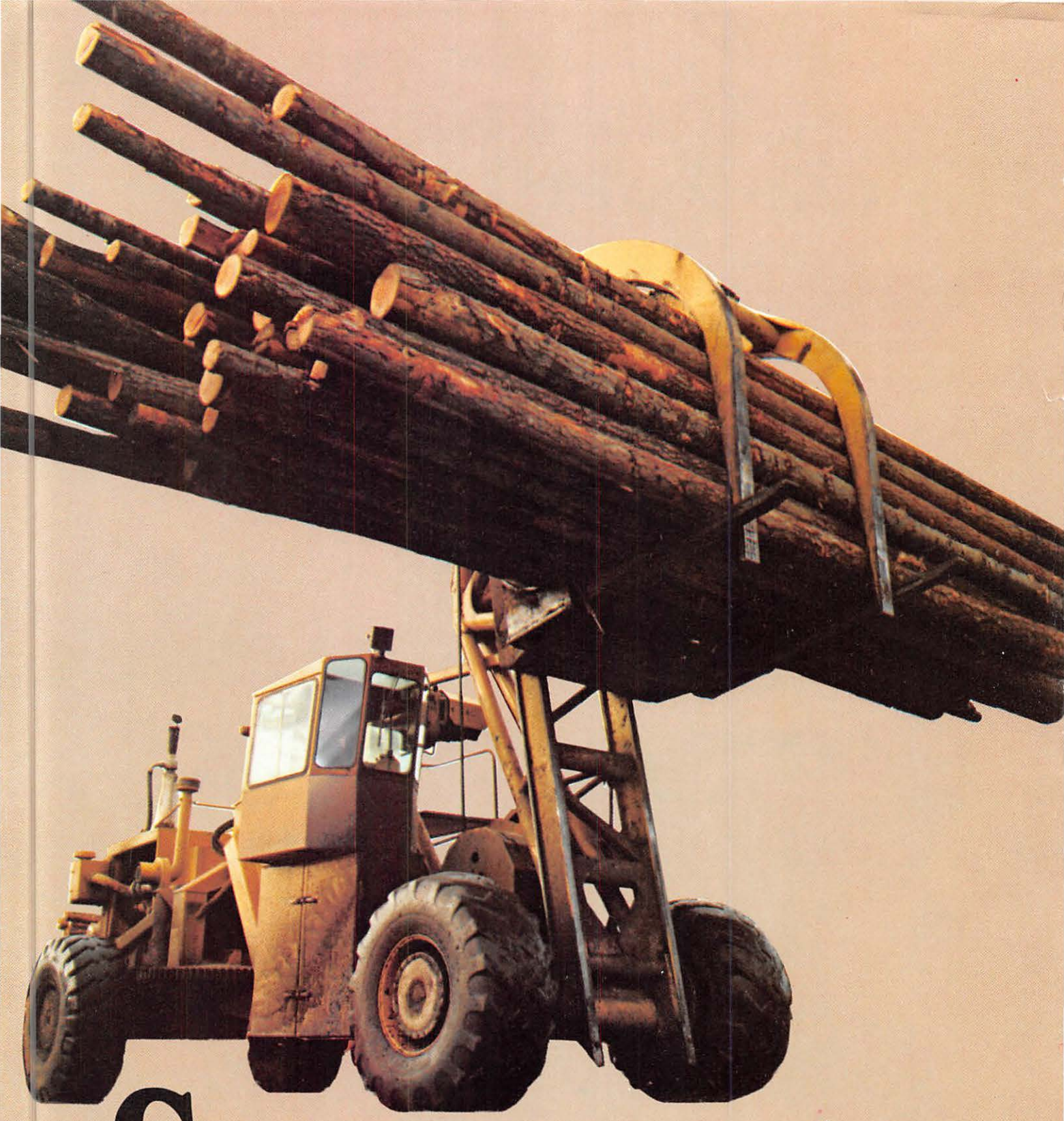

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The Big Difference Machines

New class yards will mean bigger outlays for radio and intercommunication systems

devices for railway-highway grade crossings breaks down as follows (based upon the figure of $25,000 per crossing):

Five hundred grade crossings could be equipped with protective devices by June 30, 1974; 1,500 rail-highway grade crossings could be protected with flashing-light signals with or without automatic gates in each of the fiscal years ending June 30, 1975 and June 30, 1976.

It should be pointed out that this is in addition to present funding for grade crossing protective device programs. Thus the present rate of protecting crossings—about 1,300 per year—could more than double by 1975.

● **Transit signaling gains.** Transit authorities in the U.S. and Canada plan to spend $41.7 million on signalling in 1974, up 8% from 1973 spending plans. Major projects for existing systems include installation of cab signal equipment in cars and for wayside and track circuit controls. Also, the District of Columbia's new system should see the beginning of the installation of its automatic train operation system during the coming year. Down in Atlanta, final engineering designs are under way. Toronto is extending its Yonge street line, and final testing is about to begin on the last section during 1974. Baltimore and Buffalo are in final planning stages of their rapid transit systems, which will include automatic train operation and control as a major system concept.

Existing transit authorities are modernizing signal systems. Chicago Transit Authority is installing cab signaling on its north-south line and the Douglas Park elevated line. Bids have been opened on 100 new cars which, along with existing cars, will be equipped with cab signals. New York's latest cars are being provided with controls for automatic train operation or cab signaling when money is available for providing the track circuit controls.

● **Communications down.** Railroads and transit authorities are planning to spend $138.5 million in 1974, a drop of 23% from 1973 spending plans. Major reason is that most properties are well covered for present communications needs, and as one communications engineer remarked: "Now is the time for a review of our plans for the future." Many communications engineers have been under pressure for the last few years just to catch up with expanding needs for voice traffic, and especially in the data communications area due to extensive computer usage.

Still, the modest expenditures slated for '74 are by no means a pullback from the market place. Louisville & Nashville, Norfolk & Western, Santa Fe, Southern, Southern Pacific and Union Pacific, for example, plan to install additions to their microwave systems in 1974. Also in the microwave area, several roads are replacing vacuum tube systems with solid-state equipment.

CREST CONTROL TOWER is the nerve center of Southern Pacific's $39-million class yard. Sophisticated consoles and computers govern movement of cars and build trains in this yard (at West Colton, Calif.); they also interface with other SP computer systems.

VHF radio will continue strong, especially in the replacement market where tube equipment is being replaced with newer solid-state units. Many existing radio units in service are 10 to 15 years old.

New classification yards under construction will add to the radio and intercommunications systems market. Burlington Northern is continuing work on its Northtown yard at Minneapolis, and has plans to start work on a new yard near Spokane at Houser, Idaho. L&N will begin a new class yard at Louisville (Strawberry) and Seaboard Coast Line will construct an automated retarder yard at Waycross, Ga. Santa Fe also plans to begin a new yard at Barstow Calif.

Telephone exchange installations will continue at a fairly high rate, due mainly to the increased costs of commercial telephone service. Private line rates are under investigation by the Federal Communications Commission. Uncertainty about rates will spur railroads to provide their own communications circuits. In this respect, with more railroads providing their own microwave systems, look for increased sharing of channels among railroads. Thus, one railroad will provide voice channels to another road's off-line traffic offices while it receives similar circuits from the other railroad for its off-line traffic offices.

Transit authorities are expanding their communications in the areas of data communications, public address systems, and telephones. Some are beginning to install closed circuit television to monitor station areas, particularly fare collection points where automatic fare collection systems are in service.

● **Data processing up.** As for data processing, spending during 1974 will be slightly up—about 3% to $109.1 million from 1973 figures. The biggest increase will be in the non-capital spending area, mainly for computer equipment leasing. Here, U.S. and Canadian railroads will spend $98.4 million, up 16% from 1973.

Major activity in the data processing area appears to be centered on providing more complete real-time data systems. Also, there is extensive activity in applying computers to more areas of railroad and transit operations. Strong activity continues in the re-programming area to make existing computer hardware more efficient. The Repetitive Waybill Coding system is being widely utilized so repetitive information can be generated automatically for various uses ranging from waybill and freight billing to market research statistics.

Automatic car identification is relatively quiet, mainly because of the dirty label problem. Hopefully, 1974 will be the year of label cleaning on a widespread scale. AAR's new committee looking into the problem, hopefully will have enough authority to get the job done. On the supplier side, Servo Corp. of America (KarTrak manufacturer) is offering a label cleaning program to the railroads. Servo proposes to clean labels manually in the summer of 1974 and later to install automatic label cleaning equipment at major classification yards for a continuing label cleaning effort.

Also, during 1974 the aci system of Chicago Railroad Terminal Information Systems, Inc., should come into full service. This will be a spur to many railroads to install more aci scanners to obtain their benefits. BN, for one, is planning major aci installations during the coming year.

On-balance, 1974 will be a good year for system controls suppliers. ■

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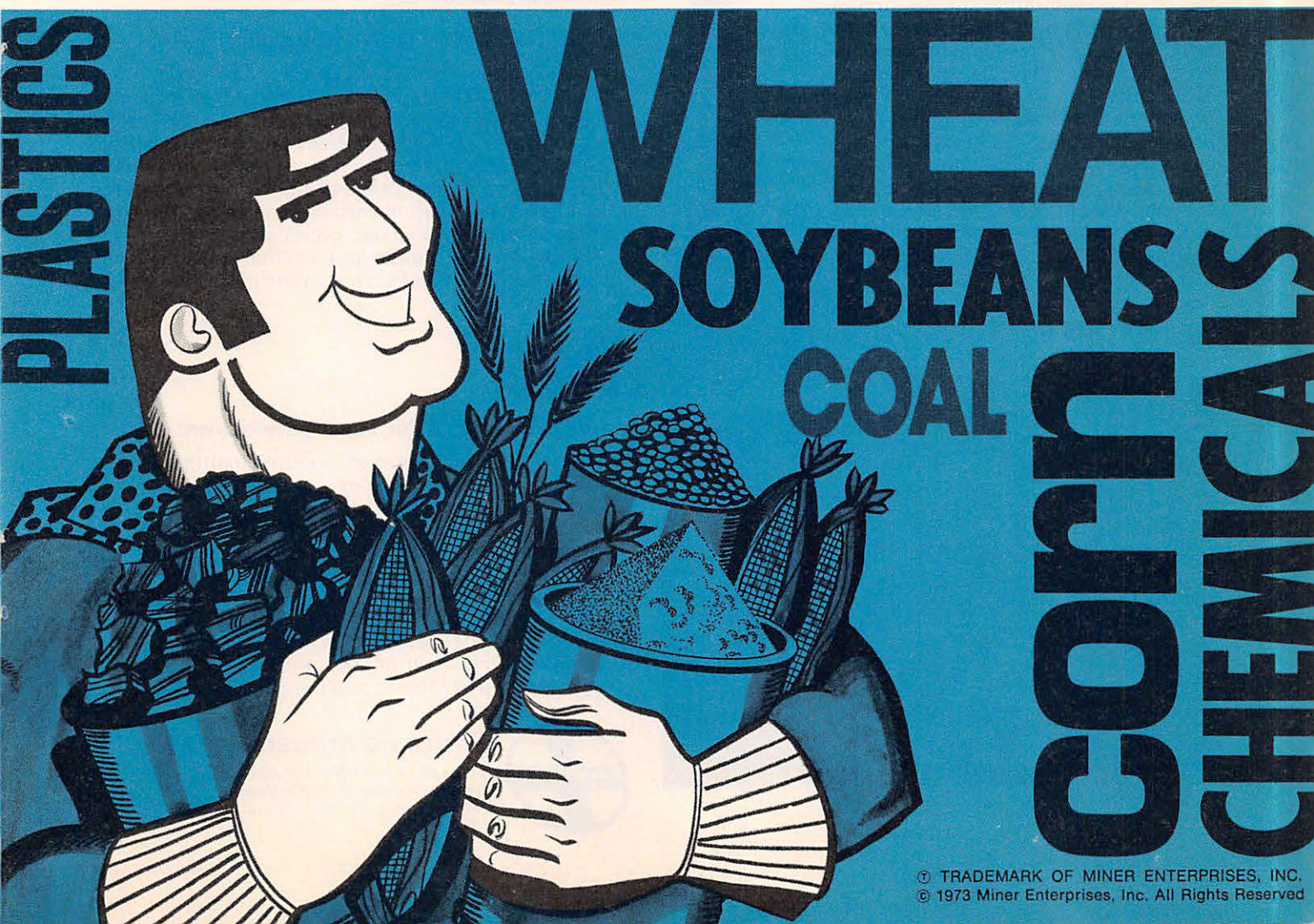

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Progress Report from Santa Fe

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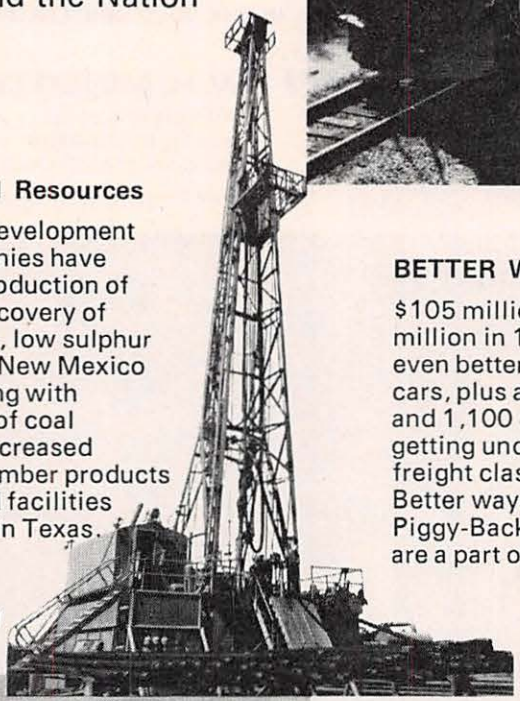

Oil drilling - Park County, Wyoming

BETTER WAYS in Transportation

$105 million for 1974 backed up with $107 million in 1973 to make our modern freight fleet even better with 118 new diesels and 4,260 new cars, plus a complete modernization of 215 diesels and 1,100 cars. Another major improvement now getting underway is a new $38 million automated freight classification yard at Barstow, California. Better ways are also being applied to truck, Piggy-Back, container and pipeline services which are a part of Santa Fe's busy transportation system.

Portobello apartment

BETTER WAYS for Land Development

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Congress ponders new rail bill

By RICHARD M.M. McCONNELL
Washington Editor

The late Adlai Stevenson—twice the unsuccessful Democratic candidate for President—brought laughs to a sympathetic audience shortly after his second defeat when he opened a speech by observing that "A funny thing happened to me on the way to the White House."

Much the same thing could be said to have happened to the Surface Transportation Act of 1973. A year ago, STA looked like the hottest thing to come down the pike for railroads since the 19th century. In fact, a coalition of surface transportation men, shippers, and government officials had formed to push STA a little faster and industry observers were looking for enactment by the end of the year.

But a funny thing happened on the way to the White House: STA disappeared. Concern over a large number of other issues, especially the situation of railroads in the northeast, focused Congressional attention away from STA and on more urgent needs. As a result, the Surface Transportation Act languished from neglect and the Regional Rail Reorganization Act instead became the highlight of Congressional efforts to deal with the ailing railroad industry.

Now the Regional Rail Act is law, and Washington is turning its attention to other rail-related legislation. So what appears as the first major rail proposal of 1974? You guessed it: STA. Of course, it has a new name—the Transportation Improvement Act of 1974—and some additions and deletions; but basically, TIA is this year's STA.

Technically, STA remains alive. It is before the House transportation subcommittee of Rep. Brock Adams (D.-Wash.) Conceivably, its sponsors will be pressing to get some of STA's language into any final bill. But right now, it looks as if the magic combination in '74 will be TIA.

● **Financial help.** Behind TIA is recognition by the Department of Transportation that the railroads' problems have been compounded over a long period of time by archaic regulations and rate structures. In addition, the bill makes provision for some long overdue government financial help in patching up operation facilities and systems, including rolling stock, right-of-way, and terminals.

Under terms of the bill, the railroads will get up to $2 billion in Federal loan guarantee authority, with the guarantees being based on three criteria:

—The proposed improvement will contribute to the establishment of a national, efficient, and economical rail system.

—The ability of the railroad requesting the loan guarantee to repay the loan.

—The return on investment of the project for which the loan guarantee is sought and the increase in rail efficiency to be derived from it.

In addition, TIA would place more emphasis on the value of competition in defining rail operation by removing some of the regulatory restraints now in effect. In line with this philosophy, the bill also allows easier abandonment of unprofitable rail lines.

Rate making improvements con-

How DOT would ease abandonments

DOT's proposed Transportation Improvement Act of 1974 would liberalize line-abandonment procedures. DOT explains the proposed new rules this way:

"Within 90 days after enactment of the bill, the Secretary of Transportation. . .in consultation with the Commission, must develop and publish standards for the classification of low-density railroad lines according to their level of usage and probable economic viability.

"Within 90 days of the publication, each railroad must submit to the Secretary and the Commission a schedule of low-density lines, as determined by applying the classification standards. . . .

"A carrier may initiate an abandonment proceeding by filing a notice with the Commission at least 90 days prior to the proposed date of abandonment. Unless a line has been listed for at least 6 months on the schedule [filed with DOT and ICC], it may not be abandoned if it is opposed by a user or State or local government served by the line.

"Within 45 days after receiving notice, the Commission may begin an investigation of the complaint of an aggrieved user. If an investigation is not begun, the Commission must, at least 30 days prior to the date of abandonment, issue a certificate permitting the abandonment. If an investigation is instituted, the Commission shall postpone the abandonment pending investigation but for not more than 6 months. Upon completion of its investigation, the Commission may either issue an order requiring continued operation or a certificate permitting abandonment. . .

"The Commission may order continued operation. . .if it determines that the public convenience and necessity requires it and if it finds that continued operation will produce revenues to cover operating costs.

"If the Commission finds that continued operation will not produce sufficient revenue to cover the operating cost, it shall issue a certificate permitting the abandonment. If the Commission finds that total revenue covers the cost of the line but that the revenue for the applicant does not cover its share of the costs, the Commission may postpone the abandonment for another 6 months. If the Commission is unable to assure that the applicant's costs are covered, the Commission shall permit abandonment. The Commission must also determine the amount of subsidy which would be required to permit continued operation of the line.

"If a state or local agency or shipper notifies the Commission of its intention to provide an operating subsidy and the Commission determines that the state or local government has or will acquire within 6 months the legal capacity to provide the subsidy or that the shipper is willing and able to provide the subsidy, it may order an additional postponement for not more than 6 months to implement a subsidization plan."

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"Congress has clear-cut options: Help railroads out. Nationalize them. Or watch them collapse."

tained in the bill require that rail rates cover the variable costs of the services offered. This means both that the rails can raise rates on certain commodities expensive to ship, and lower them on more cheaply handled goods. The bill also prohibits railroad rate bureaus from voting on single line movements; limits consideration of joint line rates to those roads actually participating in the joint movement; and prohibits rate bureaus from taking any action to suspend rates established by independent action.

Like the proposals to ease rail regulation, the basic thrust of the rate-making changes is to remove the influence of outside forces on rail operations and increase the influence of competition.

● **A fairer tax deal.** Other provisions of the Transportation Improvement Act call for:

—Consolidation of various standards applied to determine the reasonableness of rates.

—Development of methods of uniform cost accounting and revenue accounting for rail carriers, with rules prescribing the new methods to be issued within two years of enactment of TIA.

—An end to discriminatory state and local taxation of interstate carriers, a move that could save the railroads $55 million a year.

—Elimination of carrier subsidies to government agencies in the form of lower rates than other shippers pay.

—Transfer of intrastate rate-making authority to the Interstate Commerce Commission whenever state regulatory agencies have not moved promptly to adjust rates.

● **Car control system.** One final, and major, element of the bill authorizes an appropriation of $35 million to the Secretary of Transportation to design and recommend a national rolling stock scheduling and control system, designed to make better use of the nation's freight cars. According to DOT, freight cars stand idle an average of 323 days a year, and improved utilization of the existing freight car fleet could save the railroads up to $300 million in new car purchases.

Secretary of Transportation Claude S. Brinegar made no secret of the fact that he considered the Transportation Improvement Act a vital one when he released it to Congress and the public.

After commenting on the hopes for the Regional Rail Reorganization Act, Brinegar said, "We are proposing broader rail legislation—the Transportation Improvement Act of 1974—to improve the regulatory climate and the financial health of the entire rail freight system. The key objective of this legislation is to take preventive action *now* to avoid a later replay of the Penn Central problem on a national scale. . . .

"The condition of the rail industry in the Northeast, where seven large railroads are in bankruptcy, is by no means typical of the industry at large," Brinegar added. "But the cause of that illness could spread to other sections of the country unless we move quickly. Rail industry's total profits are so low—the return on capital averages only about three per cent—that there is little room for slippage.

"Fortunately, the root problems can be corrected and that, of course, is the intent of this bill. Rail freight offers many advantages to the nation: low cost to shippers, efficient energy usage, and protection of the environment. We must now move to ensure that the nation can receive the full benefits. . . ."

The main provisions of the bill, and the fact that it came out of DOT, should make it welcome to the rail industry at the beginning of debate and to the White House at the end. This leaves only Congress in between.

● **The climate warms.** Overall of course, prospects for the bill look good. Railroads right now are enjoying a long-sought basking in the warmth of public opinion. People like railroads, they want more of them, and appear to be willing to pay for them. To Congressmen and Senators approaching election, this public sentiment is likely to be interpreted as a mandate for more government action to help railroads,and consequently ease the energy crisis and the automobile's assault on the environment.

Moreover, the Congressional cooperation that emerged in the development of the northeast rail bill will probably continue. The railroads present Congress with a relatively noncontroversial forum for debate, as well as with a very clear-cut series of options: help them out, nationalize them, or watch them collapse. Given the mood of Congress, it is not hard to figure out which option is the most viable.

This is not to say that there will be no changes, of course. For example, Sen. Warren G. Magnuson (D.-Wash.), chairman of the Senate Commerce Committee and a key figure in the passage of any railroad legislation, has his own railroad rolling stock bill. He has already agreed to put it aside once, during debate over the northeast rail bill. Whether or not he will shelve it again remains to be seen.

● **Branch-line squawks.** At the same time, there will be some Congressional squawking over the proposal to ease rail abandonment. A lot of Congressmen—including Chairman Harley O. Staggers of the House Interstate and Foreign Commerce Committee—have been reluctant to see rail service to their constitutents out, regardless of what continued inefficient service means to the over-all health of the railroads. Certainly the enthusiasm that has brought much of the public back to the rails, coupled with the fuel shortage that has made truck transport less reliable than ever, will be molded into some Congressional hostility to any move that enables the railroads to cut back service.

On the whole, then, 1974 looks like a good year for railroad legislation. Even better, it looks like a good year for good railroad legislation. The White House, DOT, and Congress are at least in accord that something has to be done. The railroads are anxious for something to be done, albeit carefully. Labor, pleased with the favorable labor provisions of the Regional Rail Reorganization Act, is at least in a mood to keep talking about other changes for the railroads. And the climate of public opinion is both favorable and interested.

Perhaps the major pitfall of rail legislation this year lies in overenthusiasm. One veteran Washington watcher said that as election time draws near, every Senator and Congressman will be checking his legislative lists to see if he's covered all the bets, and the result could be a flood of dumb railroad laws designed mainly to convince voters that their man in the Capitol is working to solve the energy/environment crises. But if that is a pitfall, at least it's a different pitfall, and a welcome one after years of neglect.

With all of this in mind, it is unsettling to realize that much of the action in Washington this year is going to stem from efforts that are part of last year's legislative legacy. Look for changes at the Interstate Commerce Commission, changes aimed at making life easier for the railroads. Look for some turmoil as the United States Rail Association gets under way and its executives and employees start taking office. And pray that all goes well with the implementation of the Regional Rail Reorganization Act, because if that turns out to be a fiasco—and some people, such as Pennsylvania's Gov. Milton Shapp, think it will—then it will adversely affect all other rail legislation, especially TIA, which Brinegar has gone to some pains to relate to the northeast situation. ■

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outlook '74

Labor: Another year of progress?

By GUS WELTY
Senior Editor

On a Christmas card, an old friend—now long removed from the railroad scene—scrawled this note: "I wish I could be as optimistic about the rail labor situation as you are. I seem to see it as unrelieved darkness, the only glimmer as false as fool's gold."

That old friend could be right.

He could also be wrong.

And this could be the year when we'll all know.

If he's wrong, the industry and the people who work in it could be on the way to something great. All the time and effort and dedication poured into the improvement of the management/labor relationship will have meant something. Railroads will in fact be able to *do* a better job. People who work for railroads will *have* better jobs.

But if he's right? Well, then there will be little to show for all that time and effort and dedication. Railroads will continue to see their inherent efficiencies being eroded. People not only won't have better jobs, they—in the collective sense—won't have as many jobs.

The best guess at this point—and always, the fervent hope? Old friend has missed the handle. He's wrong.

What positive points can be made?

—There was last spring's 18-month settlement, entered into quietly, without fuss, without even a call for a Federal mediator to run between the railroads' room and the unions' room.

—There has been a generally smooth implementation of work-rule changes which were agreed to in earlier negotiations with the operating organizations.

—There have been sincere efforts, also quietly made, to work out some resolution of years-old problems which have never been solved through normal bargaining channels.

—There has been a continuation of top-level talks between leaders in management and labor.

—There have been moves on individual railroads to do a number of things to improve the employer/employee relationship. Top management is doing more to make it clear to field supervisors that directives regarding fair-and-equitable treatment are to be obeyed. Top management is also making new efforts to find out what attitudes employees have, and why. At least three major western roads have commissioned outside surveys during the past year or two, and there are a couple of significant aspects to these surveys. One is that supervisors as well as contract employees are being interviewed. Another is that, for a change, survey results are being used as a basis for change, not merely as something to be filed and thought about.

● **Difficulties ahead.** In the broadest terms, 1974 could be a tough year for management/labor relations. Workers in a number of vital industries will be bargaining—steel workers, coal miners, East and Gulf Coast longshoremen, aerospace employees, as well as railroad employees. Truck drivers are angry about speed restrictions which reduce daily mileage and thus take-home pay, and they are demanding a re-opening of their contracts. Employees, union and non-union, in virtually every industry and every company are upset about price increases which have chipped away at the increased purchasing power gained in past raises.

Thinking about these and other factors in the '74 economy, a number of observers are indeed predicting that labor will hang tough, that 1974 will be a more problem-filled year than '73 was, so far as labor disputes are concerned.

> Tough times could lie ahead—but right now there are more positives than negatives in the picture.

There is, however, a flip-side to the coin—which is, simply, that 1974 may see industrial cutbacks. Energy may be the problem, consumer resistance may be the problem. Recession—a real one or a mini- one—may be the result. Forecasts even now are that employment will suffer, with some experts looking gloomily toward an unemployment rate of up to 10%. In that kind of environment, there is a real question as to what organized labor's reaction would be: Militancy aimed at bettering the lot of those with jobs—or a go-along approach aimed at maximizing employment.

In the two most recent settlements, railroad employees have not done badly—first, with 42% over 42 months, and then with 10.7% over 18 months. Total payroll last year topped $7 billion for the first time. Average annual earnings per employee climbed to more than $13,500, as average straight-time hourly earnings rose to $5.84. At the same time, railroad employment dropped below 520,000—and it's a good man who can remember the last time railroad employment showed a year-to-year increase.

The trends are obvious: Employment goes down while payroll and average earnings go up. The problem is that neither rail management nor the organizations have been able to figure a way to produce both more jobs *and* better jobs. Or, perhaps better put, rail management and the organizations have been unable to *agree* on ways to accomplish those twin objectives.

● **Recognizing needs.** Will 1974 be the year when "more" and "better" cease to be mutually incompatible? Maybe. It just could happen—*if* there can be a recognition of the industry's need for knowledge as to what its future labor-cost structure will be at the same time there is recognition of the employee's need to be protected against the vagaries of the economy.

Under the current agreements, no changes can be made before next Jan. 1. Filing of new notices will be permitted at mid-year. And both of those dates may now seem to be far off. Coming up sooner, however, is another key date—April 1, when new proposals regarding the financially-troubled Railroad Retirement system are to be presented to Congress. And that could be the key of all dates.

In the 1973 settlement, both rail management and the unions recognized the need to tie everything up in one package—wages, benefits, rules, the retirement system. Railroads took over employee contributions to the system over and above the sums they would be paying under Social Security, and management and labor won more time to work out an agreement on restructuring the retirement system. Now, that "more time" is running out. Will there again be "package" consideration, with labor realizing the need to make concessions and management doing its part? The next couple of months may well tell the story—and there is a feeling that what happens over those next couple of months in talks between management and union negotiators may be as important as anything that has happened in rail management/labor affairs for a long, long time.

● **Local progress?** While talks are making progress—hopefully—at the national level, however, what is happening down around the grass roots? Are

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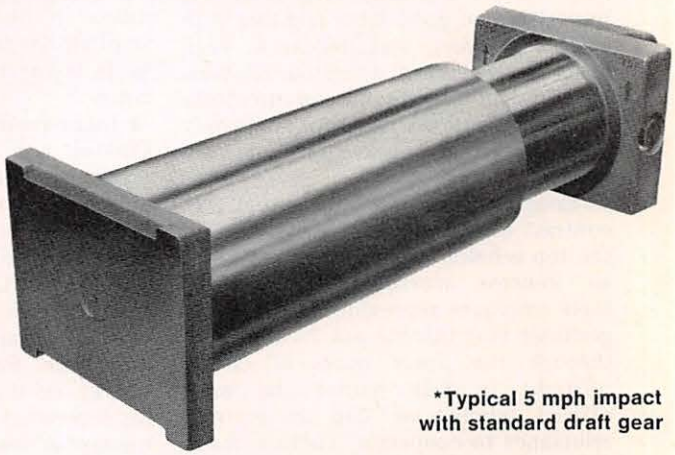

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UTU's Chesser says "some railroads are sincerely trying to improve employee relations"—but not all

employer/employee relations improving? Are railroads getting back to the kind of "team" effort that marked railroading years ago?

The answer has to be a qualified "yes"—qualified mainly because the thinking going on at top levels has yet to filter down through management's ranks.

That's about the only observation that could be made, if you give weight —and you should—to observations of a couple of top people in rail labor.

United Transportation Union President Al H. Chesser, for instance, says he has found "a generally good attitude in most railroad top management that reflects their desire to improve employee relationships. But below this level is where our problems start. And they increase in intensity when you reach the first level of supervision. . .Middle-management generally is fighting the battle of trying to apply the cooperative attitudes of top management—while still living with a completely-irresponsible lower-management, or first-level supervision, who seem to want to do as they please and get away with as much as they can until complaints filtering down from the top eventually catch up with them. This is our most serious problem —and unless it is checked very promptly it has the potential of completely destroying all of the good that has been accomplished in our joint efforts in improving employee relationships."

Similar thoughts come from Brotherhood of Locomotive Engineers President Charles J. Coughlin: "Fortunately, top management representatives, including numerous railroad presidents and those designated as chief spokesmen for the committees which negotiate for the industry, are gradually recognizing the importance of good labor relations with their employees, and insofar as engineers are concerned, I feel our relations have shown a constant and decidedly beneficial improvement—for not only management but also for our own people."

Coughlin adds, however, that "In contrast to the expressed willingness of the top echelon in railroad management to improve working relations with their employee representatives, it is regrettable that this has not flowed down through the lower ranks of carrier officials. In fact, among the lesser official family, we find an extreme reluctance to cooperate. There seems to be a prevailing desire among these lesser officials to show their authority over engineers and thus make a name for themselves—to the detriment of the successful operation of the railroads."

Improved relationships? Chesser suggests a couple of specifics: "The quasi-military type of discipline system should be discarded and replaced with a more humane and responsible system based on reasonable discipline fairly and uniformly administered. In addition, more of an effort should be made toward devoting the time of first-level supervision and middle-management to trying to comply with collective-bargaining agreements rather than to working overtime to find means of twisting them in an attempt to derive benefits that they know were never contemplated when the agreements were written."

For his part, BLE's Coughlin calls for opening of lines of communication through which "the efforts of each employee could be recognized and, where called for, rewarded—rather than to continually downgrade them"

Chesser's final observation—and his forecast—may be a sum-up of the way much of rail labor feels: "I would be remiss in my responsibility to the industry and my many good friends in the top management of the industry if I did not point out that some railroads are sincerely trying to improve employee relations. But others are winking at it and still many are giving only lip-service to it. I don't intend to be discouraged in my desire to continue the program we embarked upon more than two years ago, because much good has been accomplished. There are prospects of much more good in the future. And those who want to give only lip-service will certainly find that it will reflect in their operation when the present level of bad employee relationships remains—in the face of improved relationships among those who have joined with us in trying to make a change for the better."

● **Improvement is coming.** What Chesser and Coughlin are saying is, probably, not all that surprising. But nobody ought to be dismissing their comments with a sneer and the charge that "Hell, that's what they're paid to say." Unfortunately, indications are that in too many cases, their description of what is happening in the field is not inaccurate. Fortunately, there are also indications that top management is having somewhat more success in getting its message across, on down the line.

But, there are problems. One big one is historical, another is contemporary.

On the historical side, perhaps too many supervisors have "learned" by observation that the way to get ahead is to cut cost, be tough, bash the union. (The flip-side of this, of course, is that too many local union officers have "learned" by observation that the way to go from local chairman to general chairman to vice president is push the claim, be tough, bash the company.)

On the contemporary side, the problem is one concerned mostly with dollars—and with the fact that too often those doing the supervising come out less well on payday than those being supervised. This works, apparently, in some areas: A backfield coach may not hold a grudge because the star halfback is better paid. But railroads, traditionally, have not operated that way—until recent settlements took full effect. And the situation now seems to be creating a pair of difficulties. First, there is great potential for inferiority-complex development when the boss gets less than the employee, and there is no better way to compensate than to be a minor-league tyrant. Second, a lot of good people in the ranks, people with management potential, may choose for financial reasons to stay right where they are—while another group in management but holding seniority may opt out of management and back into the rank-and-file, also for financial reasons. Either way, management—the industry—comes up a loser.

So, problems? Sure, rail management and the rail labor organizations have them. But the fascinating thing is that in the past year or two they have shown an ability to cope with problems—an ability to get things done without the old bit of holding pro-forma talks and then throwing everything to outsiders to settle.

There was a time when a compulsory-arbitration law—for railroads and maybe for other forms of transportation—looked like a good idea. Now it looks like an idea whose time has passed—or at least been in limbo. Perhaps it's the times, perhaps it's the people (on both sides). Suffice it to say that if rail management and rail labor do *not* solve their admittedly-difficult problems in the next few months, it will not be because of any lack of sincere effort to reach solution.

So, this is the return message to the old friend who sees only "unmitigated darkness":

"Wait. Watch. See. Trust. And if I lose, you pick the spot, I'll pay the check."

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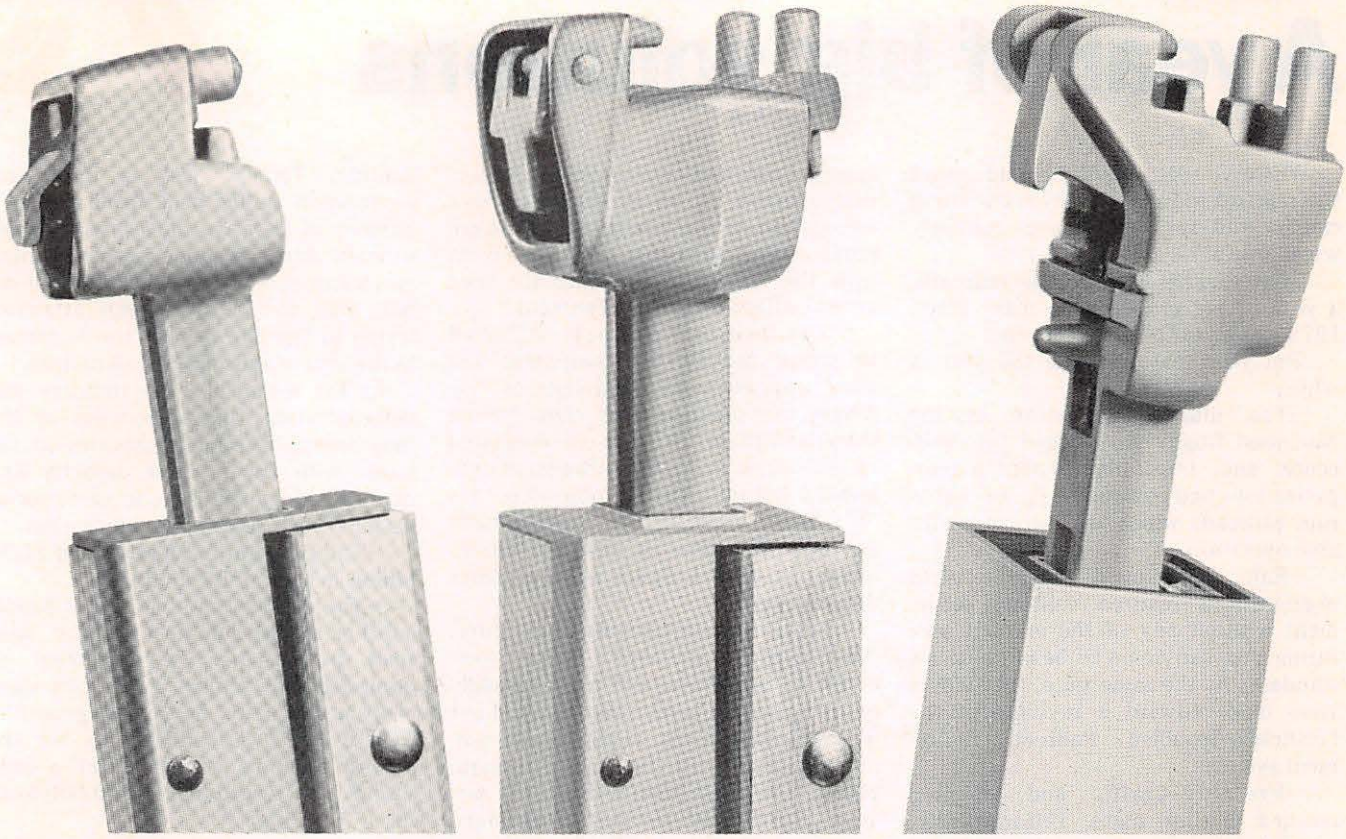
1940's 1950's 1970's



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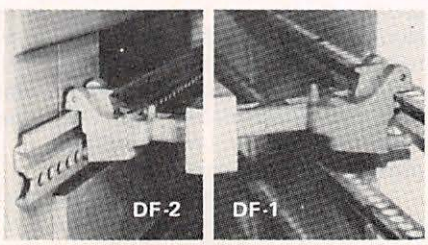

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A year of big solutions

'73

Whatever else might be said about the railroad industry in 1973, one thing can be said for sure: Things certainly weren't dull.

Every year has been, for the railroads, a year of big problems. In many ways, 1973 was a year of big solutions.

The year that was was the year in which:

—The muddled situation in the Northeast finally got nudged off dead-center and, hopefully, toward a reorganization and restructuring of bankrupt railroads which will permit profitable operation.

—Rail management and the labor organizations reached contract settlement without any of the militant posturing that had come to be more or less standard. At the same time, first moves were made toward a re-doing of the financially-troubled Railroad Retirement system.

—Freight traffic and revenues reached all-time highs. Unfortunately, so did expenses, and the industry wound up with no great improvement on the bottom line.

—Fuel and material shortages became an almost-constant problem, and fuel prices in particular headed skyward. An allocation plan covering scarce fuel supplies was finally developed by the Administration. Under the allocation formula itself, railroads came off not badly. But, as was pointed out, having a good allocation and actually being able to get the fuel could be two quite different things.

—Government showed signs of recognizing the transportation industry's need for a closer and more timely match between identifiable cost increases and rate increases. Through action by Congress and the ICC, railroads got a simultaneous pass-along when they took on sharply increased Railroad Retirement costs. The Commission began looking into rate offsets to labor-cost increases. And, late in the year, the ICC indicated it would allow similar offsets in connection with fuel-cost increases.

—Amtrak became more firmly established as part of the railroad scene. It began receiving new motive power, and it placed orders for additional locomotives and for its first new passenger cars. Turbo service came to the Midwest. Meanwhile, Congress passed a new Amtrak funding bill and the ICC moved toward the setting of performance standards for passenger operations.

—For both rail freight operations and Amtrak, national concern over the energy crisis and environmental protection seemed to be producing a new recognition of the importance of the rail mode as the mode that can do the most with the least fuel and with the least adverse effect on the environment.

—For their part, railroads continued to spend heavily for equipment and plant improvements. Deliveries of new freight cars climbed from slightly more than 50,000 in 1972 to an estimated 60,000 units, and most carbuilders were booked far into 1974. Total orders for '73 were expected to approximate 100,000. Deliveries of new and rebuilt locomotives hit a figure not seen since 20 years ago.

—Service improvements kept pace. Additional runthrough trains were added to schedules, and more through-blocking arrangements were worked out by connecting roads. Several roads, notably Southern Pacific and Southern, placed new classification yards in service: Burlington Northern continued work on Northtown Yard at Minneapolis; new yards were budgeted for Seaboard Coast Line at Waycross, Ga., Louisville & Nashville at Louisville and Santa Fe at Barstow, Calif.

It would be difficult to single out a "most important" element as regards 1973. But, if a choice had to be made, that choice might well come down to one word: Washington.

True, the industry made no great amount of tangible progress in getting its own programs enacted. At the same time, there were these Washington-based impacts:

—All the debate on the Northeast situation resulted in a fairly thorough airing of industry problems. This is not to say that the whole industry is teetering on the edge of bankruptcy. It is to say that the underlying problems of the Northeast are by no means restricted to the Northeast, and that a better governmental understanding of these problems can't hurt.

—In arriving at a consensus about what to do in the Northeast, Congress and the Administration showed little if any enthusiasm for striding or even stumbling into nationalization. Time alone will tell how the Northeast will be restructured and how the resulting system will fare. But the fact remains that the Consolidated Rail Corp. has been designed by law to operate as a private, for-profit organization.

—Various elements of government took a number of positive actions, with regard to such things as energy, rates, Amtrak. Perhaps just as important, government pulled back from making a number of negative moves, with regard to such things as putting a moratorium on abandonments, enacting a freight-car bill with too many strings attached, trying to legislate beyond the Northeast in the area of railroad consolidations.

In the meantime, the industry was demonstrating that it remains as the basic form of surface transportation, the mode with the greatest capacity and capability for expansion at least over-all national cost. Among the plus-points:

—The pump-in of an estimated $1.35 billion in capital expenditures.

—The demonstrated ability to handle another record volume of traffic. Railroad performance in movement of domestic and export grain was especially noteworthy. So was the growth in TOFC/COFC carloadings, up for the second year in a row, after a mild slump, to a record-high 1,540,000 loadings.

—The planning, mostly carried out in '73, for a high level of 1974 activity in such areas as equipment and plant spending and service improvement.

—Continued emphasis on research-and-development, including work in the areas of environmental improvement, fuel economy, safety, track/train dynamics.

—Continued improvement in utilization of assets, perhaps most importantly the freight-car fleet. Utilization, as measured by net ton-miles per serviceable-freight-car-day, went up by almost 10% from 1972 levels.

—Development, through the AAR, of TRAIN II, which is now scheduled for pilot operation by mid-1974 and full operation by early next year. This improvement on the original TeleRail Automated Information Network, which will cost the industry about $2.5 million a year, should produce significantly better handling of the freight-car fleet.

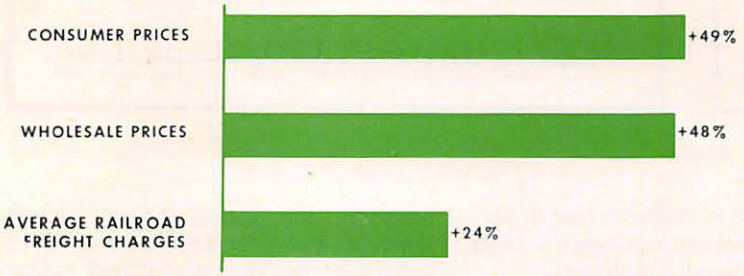
Traffic/service improvement

The railroad traffic/service story for 1973 almost has to start with one simple fact: Railroads performed more transportation service last year than ever before, an estimated 845 billion ton-miles worth. They did it with (1) a slightly smaller total car fleet, (2) a fuel-supply situation that created serious problems early and then later in the year, and (3) a concentrated demand for services, notably from the grain trade,

review

PRICE TRENDS AND FREIGHT CHARGES

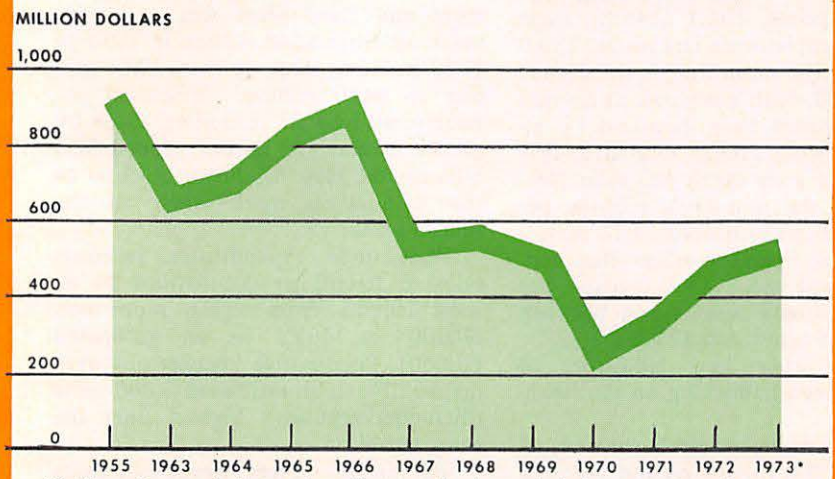
1963-1973



Increases shown are as of October 1973

NET INCOME

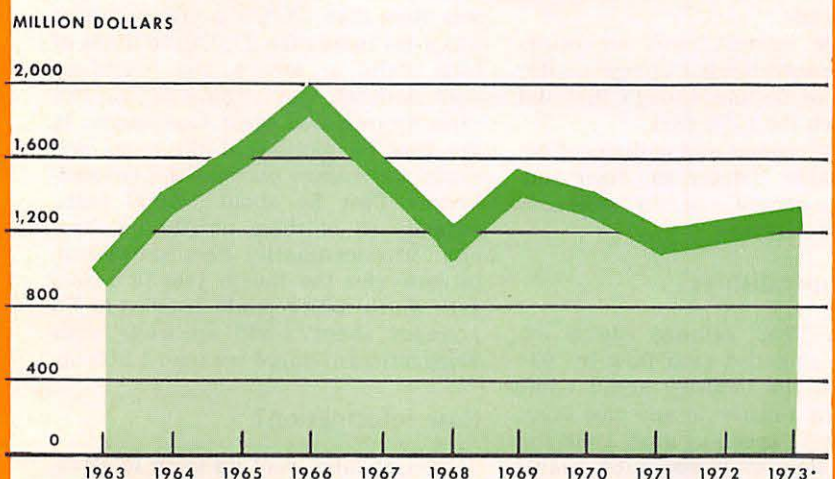
1955, 1963-1973 CLASS I RAILROADS



(Ordinary income before extraordinary and prior period charges and credits.)
**12 months ended Sept. 30*

CAPITAL EXPENDITURES

1963-1973 CLASS I RAILROADS



**12 months ended Sept. 30*

unlike anything ever seen before.

On a ton-mile basis, the industry showed an increase of almost 9% from 1972 levels. On a carloadings basis, the increase was 4.7%, and gains came in all but seven of the 21 commodity categories reported.

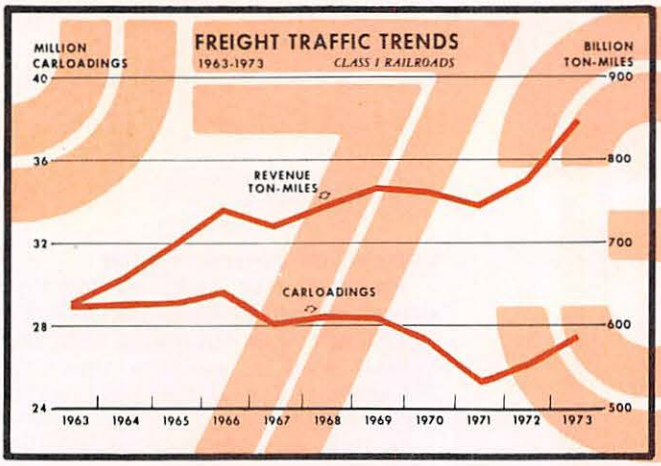
In terms of cars, grain showed the biggest increase, up by more than 320,000 carloadings to more than 1,680,000. In terms of percentages, forwarder and shipper association traffic gained 27.8%, grain 23.6%, coke 18.9%, metals and products 12.2%, metallic ores 12%. Loadings increases of more than 100,000 cars were reported for grain, metallic ores, metals and products, motor vehicles and equipment and forwarder and shipper association traffic. Ironically, there was a decrease in the largest single commodity category, coal, down by about 70,000 cars, or 1.5%, despite the energy crisis and continued development of unit-coal-train operations.

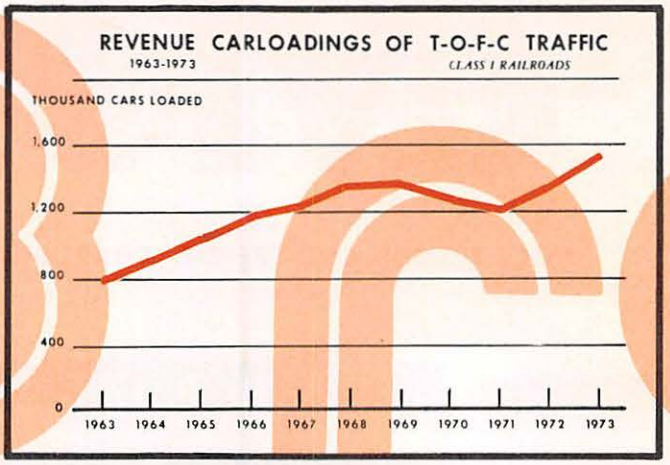
TOFC/COFC results were particularly impressive, topping 1.5 million carloadings for the first time. The number of trailers and containers handled rose by about 18% to approximately 2.7 million.

Over-all, car utilization was sharply improved, mostly as a result of (1) peak demand for equipment, and (2) improvements in operating procedures. New runthroughs were established. New computerized car-control systems were established at the individual-road level and at the industry level.

Despite a climb in freight-car deliveries, car-supply was at least a spot problem for much of the year. During first-half 1973, weather-related problems plagued a number of roads, especially those operating in the Mississippi River valley and along major tributaries. Still, the record volumes of traffic moved.

For the full year, freight-car orders totaled approximately 100,000, with emphasis on covered hopper and box cars. And, late in the year, the AAR moved toward creation of a pool of general-purpose, free-running 50-foot box cars. Initially, 10,000 cars would go into the pool. Management will be through Trailer Train, which has demonstrated a remarkable ability to get high utilization out of its fleet of flat cars in TOFC/COFC and other services. Under the pool concept, cars could be loaded to any destination by participating roads. Pool financing would be guaranteed by a group of major roads with





good credit ratings, but the benefits would be spread broadly through the industry.

Financial results

When an industry sets an all-time record-high in revenues, a casual observer would figure than profit ought also to be going up. But the railroad industry—which did in fact set a new record in revenues in 1973—also reached an all-time high in operating expenses. As a result, net income after fixed charges wasn't all that much above the $492 million recorded in 1972 (it stood at $544 million for the 12 months ended Sept. 30), and rate-of-return stayed at around a lowly 3%.

Final figures will show operating revenues of somewhat more than $14.6 billion for '73, up by about $1.2 billion from 1972 levels. Operating and other expenses, however, will be approximately $14 billion. Tax accruals will show an increase of about $100 million (and will climb sharply in 1974, thanks to '73 legislation which will add about $400 million to payroll taxes).

Whatever increase there might have been in 1973 railway operating income was squeezed from two sources—increased traffic and rate adjustments. On a ton-mile basis, traffic was up by approximately 9%. And during the year, railroads got two rate increases—3% in August and 1.9% on Oct. 1. The first increase, though, only in part offset wage levels that were 9% higher than in 1972; and the second boost was intended only as an offset to high Railroad Retirement taxes being paid by the industry as a result of '73 labor agreements and follow-up legislation under which railroads are assuming that part of employee Railroad Retirement contributions over and above the level of employee Social Security contributions.

In the meantime, '73 figures showed all categories of operating expense increasing—especially transportation expense, which amounted to $5.2 billion in 1972 and climbed to more than $5.7 billion last year. Maintenance-of-way and maintenance-of-equipment costs were also up, though less sharply.

A survey of indices shows what has been happening. On a basis of 1967=100, preliminary 1973 figures indicate these index levels (1972 figures in parentheses): Wage index, 163.1 (149.5); fuel price, 134.9 (117.1); wage rates and prices, 154.1 (141.8); wage rates and supplements and prices, 159.0 (145.6). In the meantime, in the decade ending 1973, both consumer prices and wholesale prices have increased by almost 50%, while average railroad freight charges have gone up by less than 25%. Last year, the industry's revenue per ton-mile was an estimated 1.615 cents—and if final figures confirm that estimate, it will mean that revenue per ton-mile actually went down between 1972 (1.618 cents) and 1973.

Among other key indicators of what has been happening on the financial side:

—Net working capital showed an increase in '73, for the second year in a row, but the total indicated remained under $100 million.

—Long-term debt due within a year was well over $600 million, as high as it has been in any year save one during the past decade.

—Average interest rates on equipment obligations headed up again, after two years of decline, though they did not approach the 1970 peak.

—Interest charges and equipment net rents payable continued their unbroken-for-a-decade rise, to well over $1.5 billion.

Capital expenditures

Back in 1963, railroad capital expenditures exceeded cash flow by $94 million—and the industry hasn't come that close to a match in any year since. With a drop in spending after 1966 and with cash flow at a reasonably stable level, the industry had closed the gap (from a wide $804 million in '66) to less than $300 million in 1972. Last year, however, the spread became larger again, to well over $300 million ($315 million in the 12-month period ending Sept. 30).

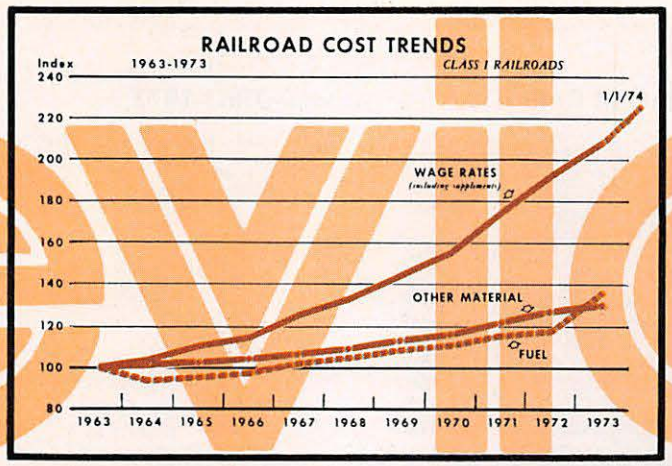
In total dollar terms, final 1973 figures will show railroad capital expenditures of approximately $1.35 billion, up 11% from the $1.22 billion level of 1972. Spending for both equipment and fixed plant was up—equipment up from $848 million in 1972 to $910 million, plant up from $368 million to $440 million. Equipment expenditures over-all, including those by private owners and lessors, topped $1.4 billion—and may be shown at close to the $1.5-billion mark when all the figures are in.

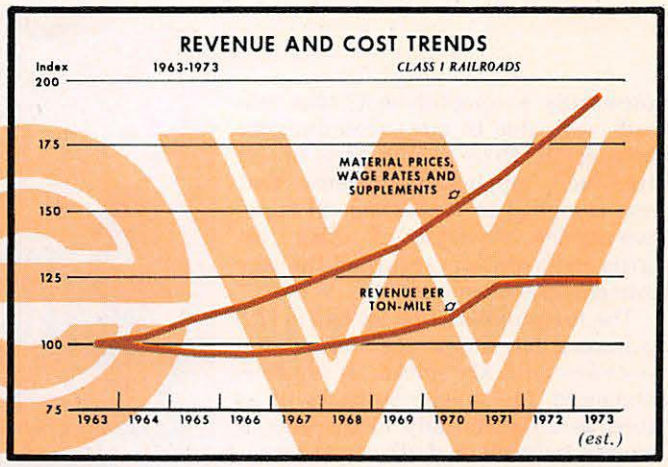
With these expenditures, railroads boosted freight-car installations by almost 10,000 (from slightly more than 50,000 in 1972 to an estimated 60,000). Locomotive installations were up slightly, to an estimated 1,600 units (including rebuilds), highest since the early 1950s.

Equipment orders were something else again. On freight cars, for example, orders added up to almost 86,000 for the first 10 months of 1973, up from less than 40,000 in the like period of '72. The Nov. 1 backlog of cars on order was more than 58,000; a year earlier, it was a bit more than 21,000. In terms of total units in service, the freight-car fleet declined very slightly in '73, but capacity increased again. One reason: In the first 10 months of the year, railroads and others boosted the covered-hopper fleet by about 14,600 units, virtually all of them of 100-ton capacity. The locomotive fleet showed an increase (for the fourth year in a row) and, worth noting, units installed in '73 averaged about 2,300 hp while units being retired averaged less than 1,800 hp.

Rate reformation?

Freight rates went up again in 1973, but that isn't the key point that could be made about rates during the year. The key point may very well be that





1973 saw a change in regulatory philosophy in which the regulators recognize the need for faster and more efficient handling of price increases to offset cost increases. Three specifics can be cited:

—Acting under a mandate from Congress, the ICC granted a two-step rate boost as an offset to costs absorbed by the railroads Oct. 1 and Jan. 1, 1974, in connection with railroad payments of employee Railroad Retirement contributions over and above the Social Security contribution level. The ICC trimmed the rate-increase requests by one-tenth of 1%, but the fact remains that the need for action was recognized and action followed.

—The Commission itself undertook an investigation of ways and means of providing price-increase offsets in the transportation industry to labor-cost increases.

—Shortly before the end of the year, the ICC indicated that it would permit carriers under its jurisdiction to raise rates on short notice in order to offset fuel-cost increases.

A major criticism of Commission procedures in the past has been that railroads (and other carriers) have had to wait months between the time stiff cost increases were sustained—wage increases, for example—and the time the ICC got around to approving price increases. It remains to be seen whether the ICC will follow through with rate policies that mate with cost facts. But the signs, as of '73, were mostly encouraging.

Meanwhile, these were 1973's developments, step by step:

—Citing fast-climbing costs, western and southern roads filed a petition in January for a 2% emergency freight-rate surcharge. About a month later, the ICC refused to go along, calling attention to the fact that the troubled eastern roads were not party to the request and arguing that evidence submitted failed to prove that western and southern roads faced "an emergency which would affect their ability to provide safe, adequate and efficient service." At the same time, the ICC indicated its ruling would not bar the filing of a petition for a permanent rate boost.

—In April, all major roads except Chessie and Long Island filed for a 5% general freight-rate increase (recyclables excepted). As the petition put it, even though traffic was at record levels, "earnings have only made a modest improvement and remain quite inadequate to enable the industry to rehabilitate, modernize and expand its services in line with public needs." The carriers said they expected no increase in net operating income from the rate boost since the expected yield "is far short of the increased costs already experienced." Full application of the proposed increase, it was indicated, would produce $619 million, while cost increases since the most recent (1972) rate increase added up to $930 million.

—Two months later, in June, railroads did get one rate break: Chief Justice Burger reversed a District Court restraining order which had banned a 3% increase on movement of goods for recycling. At that point, a second case involving recyclables was pending before the full U.S. Supreme Court.

—A few days later, the President announced a new phase of economic controls. The 3% boost on recyclables had to be rolled back. And the proposed 5% general rate increase, on which the railroads had finally gotten authority to file tariffs, was caught in the freeze. In the meantime, the U.S. Supreme Court was acting on two rate cases (including the one involving recyclables) and the essence of the court's decision was that District Courts lack power to suspend increases approved by the ICC.

—From mid-1973 on, it was virtually a case of "every week, something new." The carriers (now including Chessie) agreed on a general increase and sent out the tariffs. The ICC began its rule-making proceeding on rate offsets for labor-cost increases. It also set in motion procedures for rate offset of increased Railroad Retirement costs. A new announcement out of the Administration led to a request that the ICC permit a general rate increase, effective Aug. 13—an increase with downward modifications from the original 5% proposal which, as modified, would yield about $570 million with full application. Ultimately, the carriers wound up filing for a 3% increase effective Aug. 19, after the ICC suspended the request for larger increases. A short time later, they renewed requests for increases on recyclables, noting that the Commission had said that higher rates on such movements would have no adverse effect on the environment. The ICC said "No," calling the request "not timely," but the railroads came right back with a new proposal. As the year ended, the Commission was getting itself involved in setting up expedited procedures for recovery of fuel-cost increases—and it got a new request from roads in all three regions for a general rate increase of 5%.

One footnote on a key proceeding of 1973, the ICC inquiry into rate offsets to labor-cost increases: Railroads commended the Commission for its intent, but they asked for certain changes in the groundrules which were at least tentatively established: (1) The ICC proposed recoup only if rate-of-return on stockholders' equity were below 3% nationally or below 3% in the East, 5% in the West and 6% in the South, while the carriers suggested use of ROI on net investment and a figure of 7% or 8%; (2) the Commission set 5% as the amount by which labor costs must increase before expedited offset procedures could go into effect, while the railroads proposed 3%, calling attention to the fact that an increase of less than 5% "can exert tremendous financial pressures on the industry and bring about a need for prompt rate increases to avoid financial reversals"; and (3) the ICC would limit an offset to 50%, a figure which the industry considered too low.

Crunch or crisis?

Perhaps it wasn't a genuine miracle. But it was certainly more than just a

noteworthy accomplishment, that railroads were able to meet record service demands in 1973 in the face of (1) diesel-fuel supply-cost/problems that went from bad to worse, and (2) more-than-nagging shortages of other materials and supplies, ranging all the way from crossties to wheels.

The fuel problem first hit late in '72. Its impact, felt first in the Midwest and Southwest, quickly spread, as suppliers announced fuel-supply cutbacks of as much as 25%. As early in the year as January, railroads (and other transportation modes) were pressing for government action to set up priority allocations, to permit wider use of coal by utilities and other industries and to develop a national energy policy.

As the winter passed into spring, fuel-shortage problems eased somewhat—but the easing was only temporary and in the meantime, fuel users were being hit with a new aspect to the problem: Sharply climbing fuel prices. Over the first half of '73, the fuel price index (1967=100) went from 119.9 to 138.7, and it kept on rising in the last six months of the year.

Government, beset by internal squabbling among those who wanted mandatory allocations (or rationing) and those who demanded that a free market be allowed to work, finally moved toward allocations late in the year—but government pronouncements led mainly to confusion. First, the Administration set up a plan for mandatory allocation at the wholesale distribution level, under which allocations would be tied to a base of 1972 purchases on a corresponding-month basis. This was of no great help to railroads, what with traffic volumes then running about 9% ahead of 1972 figures.

Predictably, there were changes from the original plans. First, the Energy Policy Office issued proposed orders under which railroads would qualify for 100% of current needs for movement of fuel and passengers, 100% of fuel used in comparable months of 1972 for movement of food products, and 90% of fuel used in the '72 base periods for movement of other commodities. These proposals, too, looked like little help—especially since projections indicated that first-quarter traffic in 1974 would be about 13.5% higher than in the similar period of '72. The industry, through the AAR, protested to the Office of Petroleum Allocation, and OPA then came up with a new set of proposed regulations: Railroads were to get 100% of current needs for movement of fuel and passengers and 110% of monthly 1972 fuel volumes for all other purposes.

Under the plan, however, two priority categories were set up. Category I

Rate of Return and Net Income—1963-1973

Year	Net railway operating income (millions)	Rate of return on investment after depreciation	Net income after fixed charges* (millions)
1963	$ 806	3.12 %	$ 652
1964	818	3.16	698
1965	962	3.69	815
1966	1,046	3.90	904
1967	676	2 46	554
1968	678	2.44	569
1969	655	2.36	514
1970	486	1.73	227
1971	**696**	**2.47**	**347**
1972	828	2.97	492
12 mos. to 9/30/73	**823**	**2.96**	**544**

* Ordinary income before extraordinary and prior period charges and credits.
Operations of the National Railroad Passenger Corporation (AMTRAK) are not included.

Note: Statistics shown above and elsewhere in the tables are for Class I line-haul railroads unless otherwise indicated

Condensed Income Account—1966, 1972 and 1973

	1966 (millions)	1972 (millions)	12 mos. to 9/30/73 (millions)
Total operating revenues	$10,655	$13,410	$14,337
Total operating expenses	8,118	10,556	11,283
Taxes	968	1,143	1,244
Rents (net debit)	523	883	987
Total expenses, rents and taxes, Excl. Fed. income taxes	9,422	12,469	13,394
Ratio to revenues	88.4%	93.0%	93.4%
Net railway operating income	$ 1,046	$ 828	$ 823
Net income (ordinary)	904	492	544

Operating Revenues—1966, 1972 and 1973

	1966 (millions)	1972 (millions)	12 mos. to 9/30/73 (millions)
Freight	$ 9,281	$12,570	$13,396
Passenger	544	257	251
Mail	304	94	82
Express	67	5	4
All other	459	483	604
Total	10,655	13,410	14,337

Operating Expenses—1966, 1972 and 1973

	1966 (millions)	1972 (millions)	12 mos. to 9/30/73 (millions)
Maintenance of way	$1,304	$ 1,920	$ 2,002
Maintenance of equipment	1,844	2,398	2,480
Transportation	4,139	5,208	5,725
Traffic, general and other	831	1,031	1,076
Total	8,118	10,556	11,283

Freight and Passenger Traffic—1963-1973

Year	Revenue carloadings (thousands)	Piggyback carloadings (thousands)	Revenue ton-miles (millions)	Revenue passenger-miles (millions)
1963	28,871	797	621,737	18,494
1964	29,027	891	658,639	18,245
1965	29,248	1,034	697,878	17,378
1966	29,623	1,163	738,395	17,085
1967	28,084	1,207	719,498	15,193
1968	28,253	1,337	744,023	13,110
1969	28,237	1,344	767,841	12,159
1970	27,160	1,257	764,809	10,740
1971	25,265	**1,199**	**739,743**	**8,933**
1972	**26,105**	**1,331**	**776,746**	**8,558**
1973	27,322	**1,543**	**e 847,000**	**e 9,000**

e—Estimated.
Note: Piggyback carloadings shown above do not include mail and express, of which 95,397 piggyback carloadings were handled in 1973.

Revenue passenger-miles include National Railroad Passenger Corporation (AMTRAK) for 1971, 1972 and 1973, and Auto-Train Corp. for 1972 and 1973.

Capital Expenditures and Cash Flow—1963-1973

Year	Gross capital expenditures: Rolling stock (millions)	Other facilities (millions)	Total (millions)	Income cash flow* (millions)	Excess of capital expenditures over cash flow (millions)
1963	$ 785	$259	$1,044	$ 950	$ 94
1964	1,140	278	1,417	927	490
1965	1,304	327	1,631	1,058	573
1966	1,554	399	1,953	1,149	804
1967	1,148	374	1,522	816	706
1968	819	368	1,187	829	358
1969	1,089	421	1,509	815	694
1970	993	358	1,351	618	733
1971	864	314	1,178	784	394
1972	848	368	1,216	923	293
12 mos. to 9/30/73	859	406	1,265	950	315

*—Includes ordinary net income, depreciation and retirement charges, less cash dividends.

Note: Capital expenditures of Class I railroads do not include expenditures for railroad equipment made by private car companies and lessors.

New Equipment Installed—1963-1973

Year	Freight-train cars	Passenger-train cars	Diesel-electric units	Other locomotives
1963	48,255	156	823	13
1964	83,266	399	1,070	—
1965	89,653	666	1,403	—
1966	106,058	113	1,425	—
1967	100,181	146	1,109	—
1968	68,836	65	982	—
1969	75,972	240	1,241	—
1970	75,440	302	1,093	—
1971	60,958	281	1,276	—
1972	50,196	247	1,577	—
1973 (est.)	60,000	n.a.	1,600	—

Note: Units of equipment rebuilt are counted as new. Freight car installation includes cars of all railroads and private car lines. Passenger car figure for 1972 includes 11 cars installed by Auto-Train Corp. n.a. Not available.

Inventory of Equipment—1963-1973

December 31	Freight cars*	Passenger cars (incl. Pullman)	Head-end passenger-train cars	Diesel locomotive units	Other locomotive units
1963	1,817,026	13,742	10,860	27,945	504
1964	1,802,582	12,500	10,557	27,837	463
1965	1,803,227	11,360	9,967	27,389	427
1966	1,834,963	10,623	9,393	27,481	405
1967	1,827,376	9,904	8,707	27,309	378
1968	1,804,712	8,801	6,583	27,017	359
1969	1,795,102	8,343	4,083	26,714	319
1970	1,783,603	7,953	3,224	26,796	290
1971	1,765,514	6,761	1,909	26,897	292
1972	1,716,937 a	6,013	1,205	27,110	254
1973 (est.)	1,712,000 a	5,500	900	27,400	250

* All cars, railroad and private. a Revised series (based on TRAIN)

Note: Figures shown for passenger equipment for 1971, 1972 and 1973 include National Railroad Passenger Corporation (Amtrak); figures for 1972 and 1973 also include Auto-Train Corporation.
Number of locomotive units shown for 1972 and 1973 includes Amtrak and Auto-Train.

Prices and Revenue Averages—1963-1972

Year	Consumer price index (1967 = 100)	Wholesale price index for Railroad equipment (1967 = 100)	Revenue per ton-mile (cents)	Revenue per passenger-mile (cents)
1963	91.7	97.0	1.310	3.179
1964	92.9	97.0	1.284	3.168
1965	94.5	97.4	1.266	3.182
1966	97.2	97.7	1.257	3.182
1967	100.0	100.0	1.269	3.195
1968	104.2	103.1	1.310	3.389
1969	109.8	108.8	1.347	3.608
1970	116.3	115.1	1.428	3.914
1971	121.3	121.1	1.593	4.258
1972	125.3	128.7	1.618	4.748
1973	133.0 e	134.6 e	1.615 e	4.900 e

Note: Revenue per passenger-mile figures for 1971, 1972 and 1973 (include statistics of National Railroad Passenger Corporation (AMTRAK), and include Auto-Train statistics for 1972 and 1973.

covered fuel production, public passenger transportation and space heating. Category II covered other users, including railroads. Thus, railroads would be fighting it out for available supplies after Category I needs were filled, and the AAR again protested, asking that freight transportation be granted priorities sufficient to insure fuel supplies which would in fact be adequate to meet current needs.

Railroads were by no means alone in recognizing the seriousness of the situation. The National Association of Shippers' Advisory Boards set up a special committee to coordinate shipper/carrier reaction and response to the fuel crunch. And the ICC said it would permit railroads (and other carriers) to raise rates on short notice as an offset to rising fuel prices.

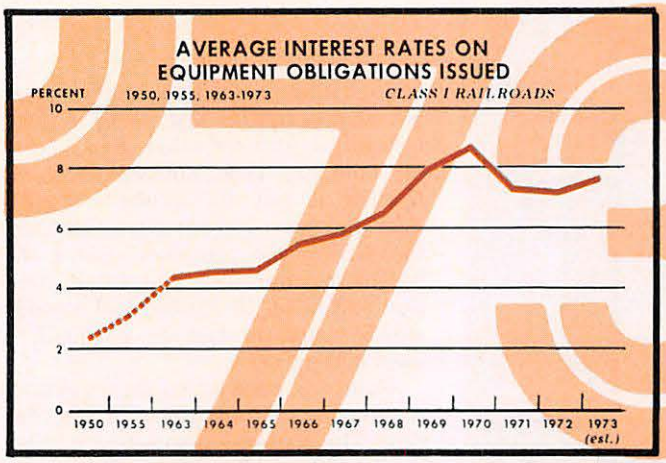
On an individual basis, railroads moved in a variety of ways to conserve fuel. One of the most comprehensive programs was launched by Penn Central, which set up a special energy-conservation unit in the operating department. It was an appropriate action for PC: Roads in eastern territory were perhaps the hardest-hit by rising fuel costs in '73; Penn Central itself, which paid an average of 11.6 cents per gallon for diesel fuel in 1972, was projecting a per-gallon cost of 19.5 cents for 1974—and a fuel-bill increase, '73 to '74, of about $30 million.

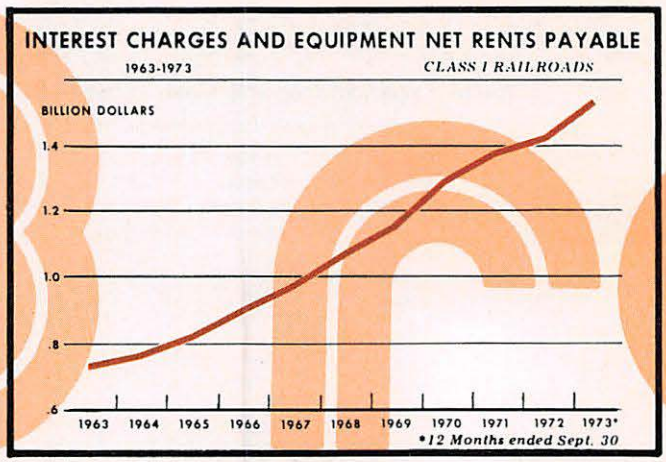
While the fuel situation got the headlines, however, railroads were also battling other shortages. On one railroad's list: Crossties, lumber and plywood, diesel filters, various car parts and diesel parts, rail, wheels. The situation produced a man-bites-dog reaction—with Federal Railroad Administrator John W. Ingram claiming industry support and going before the Cost of Living Council to ask COLC to permit higher prices for certain materials bought by railroads, notably steel wheels.

Hope for the Northeast

It was a year-long struggle—but in the end Congress did in fact attack the problem of rail bankruptcies in the Northeast. Comprehensive legislation passed the House by 284-59 and the Senate by 45-16 as one of the last items of business before Congress quit work for the year. Earlier, the Administration had criticized certain aspects of the legislation, but the final package won support and the President signed it.

In dollar terms, the new law—the Regional Rail Reorganization Act of 1973—can provide up to $1.5 billion in guaranteed loans and $558.5 million in direct grants. (Included are $85 million in operating subsidies made available for





use during the restructuring. These funds were called for in the Northeast bill and appropriated via an amendment to a new foreign aid bill.)

The legislation sets up two organizations, a United States Railway Association, which will be a government agency and which will be the planning and financing agency; and a Consolidated Rail Corp., which will operate the redesigned system on a private, for-profit basis.

Passage of the legislation came after months of intricate maneuvering, in which all concerned sought some way out of the Northeast mess, short of nationalization. At times, the situation looked bleak—not so much because there was no plan but more because there were too many plans. DOT had one, so did the ICC. The bankrupts had their own ideas, so did solvent railroads. The courts were involved, and various proposals floated around in Congress. What survived, basically, was legislation authored by a pair of westerners, Montana Republican Richard G. Shoup and Washington Democrat Brock Adams.

Under the timetable set up in the Act, it will be quite a while before a restructured system begins functioning. First, there will be planning stages, involving DOT and ICC. The Federal judges involved in the bankruptcies will have to study each case, decide whether the railroad can be reorganized under the traditional income-basis method and, if it can't be, then decide whether to order it liquidated or reorganized under the Northeast bill. The legislation requires that CRC be set up within 300 days of passage; it also requires that USRA have ready for submission in 420 days a final-system plan which would reflect a variety of preliminary inputs. Ultimately, the final-system plan will be reviewed by the full ICC and reported on by it to Congress. If neither house disapproves, the plan goes into effect 60 days after it is sent to Congress.

What the final-system plan is supposed to do is to identify which properties of railroads in reorganization will be offered for sale to a profitable railroad, which will go to CRC, which might be acquired by Amtrak, and which might be acquired by state or local authorities. In the case of acquisitions by profitable lines, USRA must determine that the move would not hurt the profitability of other roads, and the ICC must approve the transaction (under expedited procedures).

Actual exchanges involving bankrupt roads will be reviewed by a special three-judge Federal court. USRA will give the court its plan—listing amount, terms and value of the securities to be exchanged for rail properties being acquired by CRC. If the court decides the proposal is not "fair and equitable and in the public interest," it can reallocate securities among the bankrupt, require additional securities and obligations of USRA or CRC as payment, or even enter a deficiency judgment against CRC.

On the financial side, of the $1.5 billion in guaranteed loans to be administered by USRA, up to $1 billion will be available to CRC, with the remaining $500 million going mostly for improving passenger service in the Northeast Corridor. CRC would use part of the loan funds to help in buying properties from the seven bankrupts, though transactions of that kind would be handled primarily through giving creditors stock in the new railroad. And there is one major restriction on CRC's use of loan-generated funds: At least $500 million has to be used for modernization.

The legislation also provides for up to $150 million in interim loans which could go to bankrupts scheduled to be included in CRC. The total of such loans, made before CRC is established, would be considered within its $1-billion loan ceiling.

Direct grants add up to $558.5 million, broken down this way: $90 million a year for two years to subsidize or to allow public authorities to buy losing lines that would otherwise be abandoned; $250 million for employee protection; $85 million in interim operating subsidies for bankrupts; and $43.5 million in administrative costs for USRA, DOT and ICC.

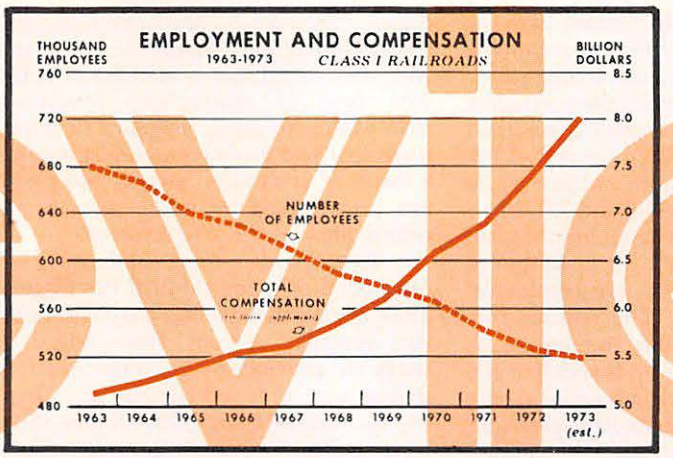
Among other key provisions of the legislation:

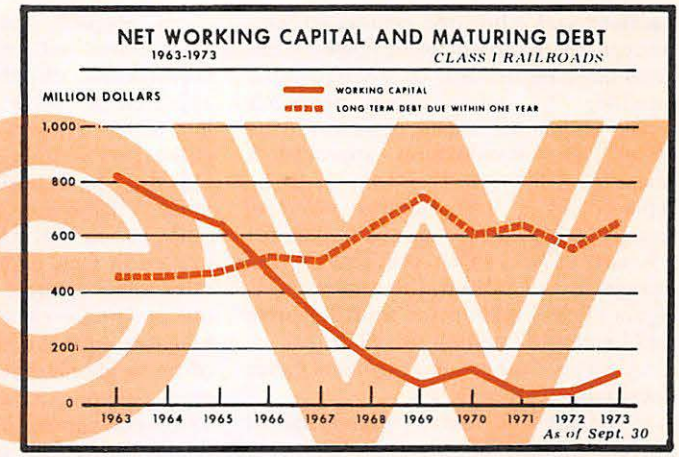
—While bankrupts are now generally barred from making abandonments, provision is made for expedited handling of abandonments after the final-system plan is in effect. (The Senate bill contained a two-year moratorium on all rail abandonments, but that amendment did not survive the Senate/House conference.)

—Rail service-continuation subsidies are to be made available on a 70-30 basis, with Federal money accounting for the 70%. In handling the total $180 million which will be available, half of each annual subsidy appropriation will be allocated to the states involved, based on a miles-of-track formula. DOT will hold the other half, for discretionary use. It is also possible that states may choose to acquire and modernize unprofitable lines. In such a situation, with DOT approval, USRA would have to provide loans or guarantees covering 70% of costs—but lines bought or modernized with this kind of aid would not then be eligible for operating subsidy.

—Employee protection was made a part of the law, and the protection provided will be substantial. For example, employees with more than five years' seniority who lose out because of reorganization would be eligible to receive full salary up to $30,000 a year until age 65. Both union and non-union employees are covered; top corporate officers are not.

As is sometimes the case, what a bill doesn't say is as important as what it does say. In connection with the Northeast bill, conferees in committee knocked out a number of controversial items, including the abandonment ban; a section giving the SEC authority over rail financial matters; new and severe restrictions on movement of explosives; the so-called Fastcor rolling-stock loan-





guarantee plan; a proposal to study merger of all Class I railroads into a single system; and a proposal to study work rules in the context of the rail consolidation.

Merger movement?

Last year was not one of the memorable years for railroad get-togethers. But, there were a couple of noteworthy happenings:

—The U.S. Supreme Court upheld the Illinois Central/Gulf, Mobile & Ohio merger which had been consummated in August 1972.

—Chesapeake & Ohio and C&O-controlled Baltimore & Ohio officially became Chessie System through creation of Chessie as a parent company for C&O and subsidiaries.

—Cotton Belt completed purchase from Chicago & North Western of C&NW's 50% interest in Alton & Southern (with Missouri Pacific retaining the other 50%).

—Southern got the final OK for merger of Norfolk & Southern with a Southern subsidiary and planned to make merger effective Jan. 1, 1974.

—The Rock Island merger case kept rocking along. The third and final volume of the ICC administrative law judge's report was filed early in the year, just about everybody took exception to it, and the year ended as it had begun: Status quo. Oral arguments on exceptions were heard in late November.

—Burlington Northern and Milwaukee Road began merger studies, which were aimed at producing conclusions sometime early in 1974.

For the most part, major mergers consummated in recent years appeared to be working well, at least from an operational standpoint. Among them: Seaboard Coast Line, Burlington Northern, Illinois Central Gulf. And what would amount to the biggest "merger" of them all—a rationalization in the Northeast—moved closer to some kind of conclusion. At yearend, Congress had acted on a Northeast bill—and the President's signature, put on the measure early in '74, made it official.

Management/labor

In the sometimes-troubled world of rail management/labor relations, 1973 was marked more by triumph than by travail. It would be unfair and perhaps inaccurate to say that management and labor engaged in a detente-of-desperation; closer to the truth would be an observation that management and labor (with the help of new leadership at certain key points) came to recognize the reality in that trite sentence "We're all in this together."

To be sure, there were problems. Penn Central and the United Transportation Union spent most of the first half of the year battling over crew consists before PC, facing a strike that could have wrecked it, put an indefinite hold on the crew-consist changes it was free to make. Two unions balked at a national contract settlement their negotiators had agreed to and at yearend they were still unsigned. Canadian roads were hit by a series of floating strikes and a nationwide walkout which finally had to be ended by Parliament.

On the positive side, however, there was more to report. Most important, the carriers and the unions were able to agree on a long-term (18-month) wage/benefit/rules package—and they did it (1) without even the threat of a strike, (2) without any notices being served by the railroads, (3) without government intervention, and (4) without coming close to a "deadline," since settlement came in March and July 1 was the earliest either side could have begun to move toward a confrontation. That settlement didn't provide the multiple wage increases included in most past agreements; the only outright wage boost was 4% due Jan. 1, 1974. But it did provide a substantial boost in take-home pay because as of Oct. 1 the railroads took over that part of employee contributions to Railroad Retirement over and above the contribution paid in by persons covered by Social Security. This provision alone added $42.75 to the paychecks of employees paying the maximum into the Retirement system ($47.50 on Jan. 1, 1974).

Among other provisions of the settlement: (1) Three separate temporary increases in retirement benefits, which had been scheduled to expire in mid-1973, were extended through 1974 with the intent that they should be made permanent Jan. 1, 1975; (2) all employees were given the right, as of July 1, 1974, to retire at age 60 (with 30 years' service) with no loss in benefits; (3) a management/labor committee was created to work on an over-all restructuring of the Retirement system; (4) the national hospital, medical and surgical and group life insurance program, totally financed by the carriers, was extended through 1974 and maximum major-med benefits were increased. Including all provisions of the agreement, the package amounted to a 10.7% wage/benefit increase over the life of the contract.

Most unions were quick to ratify the pact. But, even though their representatives in the negotiations had initialed the agreement, two unions—the Machinists and Sheet Metal Workers—refused to sign. At yearend, the National Railway Labor Conference had filed suit against the Machinists, seeking a court order requiring the union to accept the national agreement; and the carriers and the Sheet Metal Workers had asked the National Mediation Board to enter their dispute. (Actually, members of both unions had been benefitting from the reduction in employee contributions to Railroad Retirement, though the unions' failure to sign the agreement barred the people they represent from getting the 4% wage hike payable as of Jan. 1, 1974. A similar situation prevailed for all employees of certain of the railroads in reorganization: They gained from the change in the retirement-system pay-in but they were not scheduled for the 4% increase.)

In giving its approval to what man-

agement and labor had negotiated with respect to Railroad Retirement, Congress directed the ICC to give expedited handling to rate-increase proposals under which the added costs could be offset. The Commission approved a boost of 1.9% effective Oct. 1, to be replaced by a 2.6% increase effective Jan. 1, 1974; the railroads had asked for 2% and 2.7%. As to the cost of the change in the system, the carriers set a figure of $67 million for fourth-quarter 1973 and $367 million for 1974.

Among other management/labor developments during '73:

—Amtrak and the rail unions agreed on an employee-protection plan for employees adversely affected by passenger-service cutbacks. Basically, the agreement covered the same maximum benefits (up to six years' protection) as had been provided two years earlier for employees of individual roads who were affected when Amtrak took over most of the industry's passenger operations.

—Chicago & North Western and the UTU finally settled their long-standing crew-consist dispute, on terms which appeared to leave both sides satisfied but which enjoyed something less than enthusiastic support from the rest of the industry. In disposing of notices dating back to 1965-66, C&NW and UTU in a sense put in writing something that had existed in fact, namely the operation of a sizeable number of one-conductor, one-brakeman crews. The railroad did, however, gain the ability to increase use of one-and-one crews on branchline and yard assignments and management and union also agreed that similar operations could be tested in mainline service, subject to certain restrictions. Train-service crew members operating one-and-one were to be paid an additional $10.75 per basic day. Industry observers tended to agree that one-and-one operation makes a lot of sense. However, they questioned the extra-pay provision, which was substantially above the so-called "lonesome" pay going to engineers operating without a fireman. And they noted that while C&NW had a firm base of one-and-one operation from which to build, virtually all other roads that had made crew-consist cuts as a result of arbitration awards had years ago been forced by union pressure to restore most of the jobs involved.

—To Canada went the dubious distinction of going through the biggest 1973 management/union confrontation. Non-operating unions first staged a series of province-by-province rotating strikes over a four-week period. When the carriers held firm, the unions then went to a nationwide strike which lasted a bit more than a week before Parliament ordered a return to work and arbitration of the dispute. Parliament also ordered minimum hourly wage increases of about 18% to go into effect by July 1, 1974. Even after Parliament acted, however, it was several days before all union resistance faded away and normal operations could be resumed in all parts of the country.

—Back in the U.S., from an industry standpoint, relations between management and unions and employees were perhaps better than they had been in years. Top-level discussions between management and labor continued; equally important, an increasing number of individual roads set out in deliberate fashion to (1) find out what the relationship between supervisor and supervisee really is, and (2) improve upon it.

Index of Wage Rates and Material Prices—1963-1973

(Average 1967=100)

Year	Wage Index	Wage rates and supplements	Price Index: Fuel	Price Index: Other material	Price Index: Total material	Index of wage rates and prices	Wage rates and prices including supplements
1963	84.2	80.2	99.1	93.4	94.6	86.1	82.6
1964	86.3	82.8	93.3	94.2	94.0	87.7	84.6
1965	90.9	88.9	95.6	94.9	95.0	91.6	89.9
1966	93.9	92.9	97.2	96.5	96.6	94.3	93.5
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	105.1	106.3	103.5	102.6	102.7	104.7	105.7
1969	112.2	113.6	106.7	105.5	105.8	110.9	112.3
1970	122.7*	125.6*	110.5	109.4	109.7	120.2*	123.0*
1971	136.8*	139.4*	114.6	113.5	113.7	131.2*	133.7*
1972	**149.5**	**153.4**	**117.1**	**118.7**	**118.1**	**141.8**	**145.6**
1973 (Prel.)	**163.1**	**168.3**	**134.9**	**122.9**	**126.2**	**154.1**	**159.0**

*Reflects inclusion of retroactive wage increases.

Employees and Their Compensation—1963-1973

Year	Average number of employees	Total payroll (thousands)	Average annual earnings per employee	Average straight-time: Hourly rate	Average straight-time: Hourly earnings
1963	680,039	$ 4,629,566	$ 6,808	$ 2.78	$ 2.99
1964	665,034	4,697,884	7,064	2.85	3.06
1965	639,961	4,793,066	7,490	3.00	3.22
1966	630,895	4,879,273	7,734	3.10	3.33
1967	610,191	4,933,663	8,085	3.30	3.56
1968	590,536	5,110,636	8,654	3.47	3.74
1969	578,277	5,362,754	9,274	3.70	4.00
1970	566,282	*5,711,280	*10,086	*4.05	*4.35
1971	544,333	5,999,968	*11,023	*4.52	*4.35
1972	**526,061**	**6,424,920**	**12,213**	**4.94**	**5.32**
1973 (est.)	**519,100**	**7,020,000**	**13,525**	**5.40**	**5.84**

* Adjusted to include retroactive increases.

Railway Tax Accruals—1966, 1972 and 1973

	1966 (millions)	1972 (millions)	12 mos. to 9/30/73 (millions)
Payroll taxes	$439	$ 622	$ 710*
Federal income taxes	186	113	120
All other taxes	343	407	413
Total	968	1,143	1,244

*As result of legislation enacted in 1973, payroll taxes are expected to increase in 1974 by about $400 million over the amount shown for 12 months ended 9/30/73.

Safety

In 1973, there was nothing—thankfully—like the 1972 Illinois Central Gulf commuter-train accident to put transportation safety in Page 1 headlines. Instead, it was a kind of grind-it-out year, with (1) railroads making safety-related improvements individually, (2) FRA coming out with its initial equipment standards, and (3) the National Transportation Safety Board having a lot to say about a lot of things, including its own desire to be free of any connection with DOT. Rail/highway grade-crossing safety got a boost, with $175 million over a three-year period to be available from the Highway Trust Fund for crossing-protection and -separation projects (at least half of which would go for protective devices).

First, the statistical report. When 1972 figures became available, the record showed that deaths (from all types of railroad accidents) were down for the third straight year, as were injuries. First-half 1973 totals told the same story, with both deaths and injuries down from totals during the first six months of 1972. On train accidents, however, it was a different story: Under the train accident definition—mishaps stemming from operation or movement

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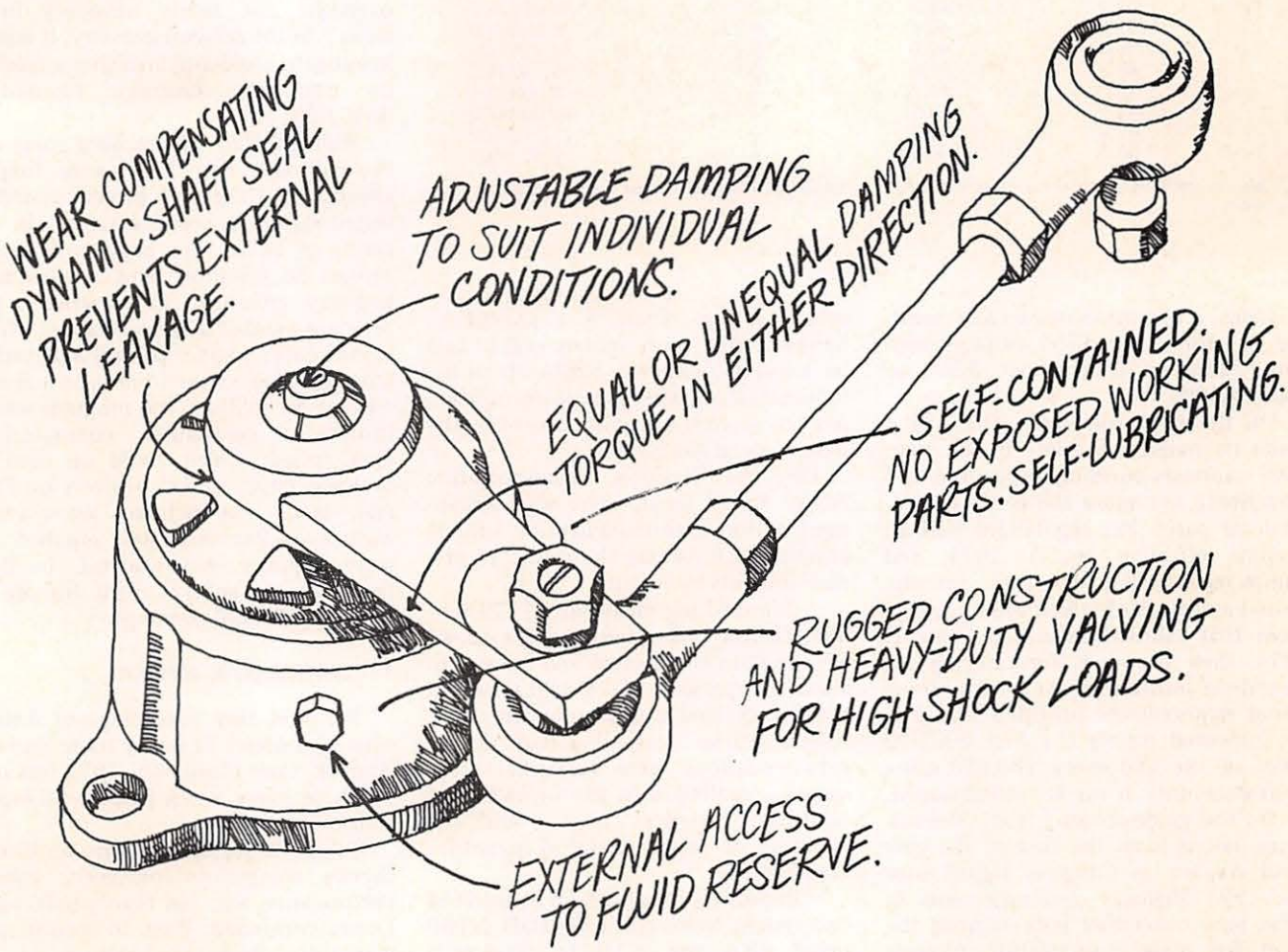
Houdaille Rotary Shock Absorbers show their age . . . over 40 years of field experience. And over 40 years of engineers and designers and researchers looking for a better way to give a better ride with Rotary Shock Absorbers.

And over 40 years of solid results, too. Like rugged, self-contained construction that shuts out dirt, dust, mud and water. Or temperature valves that ensure uniform performance from −30° to 160°F. Or a Rotary Shock that can be repaired. Not replaced.

And we're going to solve tomorrow's problems, too. For *at least* another 40 years. Monorails. Metroliners. Mass transit of the future. Because we're Houdaille.


WEAR COMPENSATING DYNAMIC SHAFT SEAL PREVENTS EXTERNAL LEAKAGE.
ADJUSTABLE DAMPING TO SUIT INDIVIDUAL CONDITIONS.
EQUAL OR UNEQUAL DAMPING TORQUE IN EITHER DIRECTION.
SELF-CONTAINED. NO EXPOSED WORKING PARTS. SELF-LUBRICATING.
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EXTERNAL ACCESS TO FLUID RESERVE.

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Carloadings by Commodities—1973 vs 1972

	1973	1972	Incr. or Decr. 1973 vs. 1972	Cars	Percent
Grain	1,682,112	1,360,669	I	321,443	23.6
Other farm products	641,548	686,427	D	44,879	6.5
Metallic ores	1,929,687	1,722,314	I	207,373	12.0
Coal	4,486,978	4,557,484	D	70,506	1.5
Crushed stone, gravel and sand	1,454,323	1,480,938	D	26,615	1.8
Nonmetallic minerals	765,982	720,234	I	45,748	6.4
Grain mill products	1,066,064	970,110	I	95,954	9.9
Food and kindred products	1,174,996	1,250,367	D	75,371	6.0
Primary forest products	1,230,620	1,204,303	I	26,317	2.2
Lumber and wood products except furniture	860,451	902,562	D	42,111	4.7
Pulp, paper and allied products	1,184,461	1,191,452	D	6,991	0.6
Chemicals and allied products	1,456,820	1,402,248	I	54,572	3.9
Petroleum products	484,087	480,895	I	3,192	0.7
Stone, clay and glass products	1,095,492	1,085,331	I	10,161	0.9
Coke	433,733	364,918	I	68,815	18.9
Metals and products	1,393,014	1,242,033	I	150,981	12.2
Motor vehicles and equipment	1,351,985	1,232,842	I	119,143	9.7
Waste and scrap materials	830,595	767,908	I	62,687	8.2
Forwarder and shipper association traffic	501,702	392,594	I	109,108	27.8
All other carloads	3,272,200	3,063,061	I	209,139	6.8
LCL traffic	25,068	25,952	D	884	3.4
Total cars loaded	**27,321,918**	**26,104,642**	I	**1,217,276**	**4.7**

Methods of Shipping Motor Vehicles from Factories—1963-1973

Year	Highway %	Railroad %	Boat %	Vehicles shipped
1963	70.8	27.7	1.5	9,090,000
1964	61.6	38.2	0.2	9,292,000
1965	58.9	40.2	0.9	11,057,000
1966	54.1	45.7	0.2	10,329,000
1967	51.4	48.4	0.2	8,976,000
1968	50.8	49.0	0.2	10,718,000
1969	48.2	51.7	0.1	10,147,000
1970	45.3	54.7	–	8,239,000
1971	47.5	52.5	–	10,638,000
1972	47.8	52.2	–	11,270,000
1973est.	**50.0**	**50.0**	–	**9,527,689**

Source: Motor Vehicle Manufacturers Association of the United States, except 9-mos. 1973 estimated by AAR.

of trains, locomotives or cars and resulting in more than $750 damage—incidents were up from about 3,500 to about 4,500.

On the safety-standards front, FRA made its major move late in the year, with standards covering inspections and prescribing minimum standards for critical car parts. The regulations were to become effective Jan. 1, 1974, and compliance schedules were set—the most immediate of which was a requirement that railroads submit by Feb. 1, 1974, their proposals for carrying out freight-car inspections. In general, these initial requirements provided that cars be inspected during the first 200,000 miles of use and every 100,000 miles thereafter until a car is reconditioned.

On the grade-crossing front, the suspense lasted from the first of the year until August, as Congress argued over the 1973 Highway Act—arguments in large part concerned with tapping the fund for mass-transportation projects unrelated to highway construction. At one point, as much as $600 million might have been made available, instead of the $175 million which eventually survived Senate/House conference-committee action. There is a possibility, however, that more money will in fact be available, under a $250-million authorization for safe-roads demonstration projects on highways not covered by the basic Federal-aid system.

On the National Transportation Safety Board front, there was perhaps more action than elsewhere (at least in government). Among the many '73 pronouncements by NTSB:

—Commenting on an early-1972 accident (Alton & Southern) which caused $7.5 million in damages and injuries to some 230 persons, NTSB said a lack of "clearly defined and coordinated safety responsibilities" played a part. Its recommendations were somewhat more specific, dealing with the operation of class-yard retarder systems and the handling of cars containing hazardous commodities.

—Reporting on a head-on collision of two freight trains (Penn Central), NTSB urged FRA and AAR to develop a fail-safe deadman train-stop device and require its installation and use. (Three members of the Board attributed the accident to man-failure, two regarded the cause as unknown.)

—Issuing findings on the ICG commuter-train accident, NTSB called for more R&D, including crash-testing, to improve crashworthiness of commuter cars. It also urged study of some kind of collision-preventing system, and improved understanding of and compliance with operating rules. (For its part, FRA began a rule-making proceeding dealing with markings on passenger equipment "to enhance visibility and protect against rear-end collisions.")

—In its annual report to Congress, NTSB asked (for the second time) that legislation be enacted making it independent of DOT, charging that "too often it has been assumed that the Board is not independent but a subordinate part" of the Department. (Basically, NTSB was in fact created as an independent entity but one which was placed within DOT "for efficient housekeeping" and to enable it to draw upon DOT resources.)

—The immediate reaction to the NTSB independence plan was introduction of a bill to create a new agency to supersede NTSB. The proposed National Agency for Transportation Safety would take on NTSB's functions and have "an expanded role in investigation, oversight and safety advocacy functions." In the railroad industry, it would investigate accidents involving a fatality or property damage exceeding $500,000.

While all these things were going on, the railroads and FRA were forging ahead with their own project aimed at improving grade-crossing safety. In the spring of 1973, they began a five-state project to inventory and number rail/highway crossings. In November, the program entered a national phase which would cover public, private and pedestrian crossings. Over 14 months and at a cost of $4 million, the program would provide a centralized, computerized data system which could be used to evaluate improvement projects on Federal, state and railroad levels (with highway-traffic estimates supplied by state highway departments). In final form, the inventory might include as many as 500,000 crossings.

For passengers, service. . .

For that tiny percentage of Americans who prefer to go by train—and for Amtrak, their champion—1973 was one of those years when just about everything went right.

To be sure, there were problems. Service complaints continued, ontime performance was less than satisfactory. Losses continued. Plans to acquire new locomotive-drawn equipment had to be set back somewhat from the original schedule. On a couple of fronts, Amtrak was locked in disputes with the railroads over which it operated.

But there were also positive signs;

Let's re-invent the railroads!

The railroad crisis makes this worth thinking about! Suppose railroads were to be re-invented today? Starting from scratch?

They need to be re-invented, you know. Railroads have a lot to offer at a time when energy, resources and land are going to be scarce and transportation demand soars.

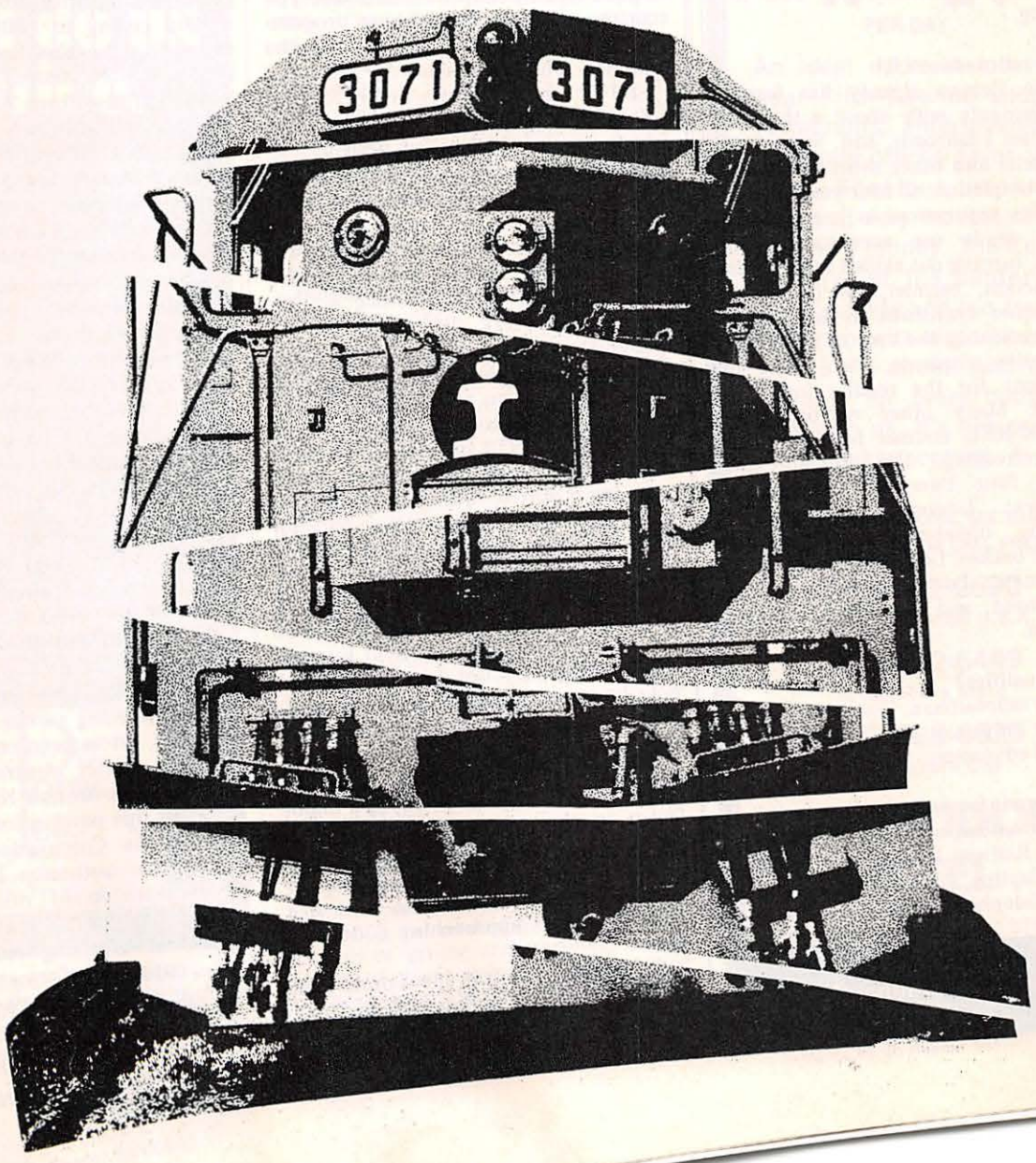
Railroads use far less energy to move things than do most other carriers. They are also environmentally "cleaner" than other modes of transport. Further, they use only a fraction as much land, and most of that right-of-way is already there, waiting to be used for the huge demand experts say is ahead.

Of course, the newly invented railroads should look good—be fresh and modern from the tracks up. New equipment, power, tracks, grade crossings, bridges, shops, offices and stations. With the help of government-backed loans, modernized regulation and recognition of the competitiveness existing in transportation, railroads can help themselves.

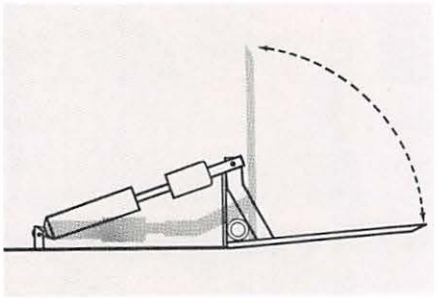
Your Congressman and your Senator can help re-invent the railroad—by making laws that are responsive to today's world.

Let your Senator and Representatives know how you feel. Because you and your neighbors need really good railroads.

ILLINOIS CENTRAL GULF
An IC Industries Company



New Products Report



Dock levelers feature new exclusive lip support mechanism

An exclusive new Hydrachek lip support has been announced by Rite-Hite Corp. for its lines of upward biased fully-mechanical hinged lip dock levelers. A pull of the lanyard releases the hold-down mechanism and the spring counterbalance system automatically raises the platform to its high point and extends the lip section with a minimum of operational violence. The Hydrachek lip-support mechanism consists of parallel hydraulic dampers that support the extended lip for up to 15 seconds while the dock attendant walks the platform down to the truck bed. Hydrachek test results indicate over 20,000 operating cycles were achieved without any significant loss of cylinder pressure in operating temperatures from -10 deg. F. to +100 deg. F. After truck departs, or if platform was never walked down, the lip section automatically retracts to pendant position, out of the way of incoming trucks and their cargo.

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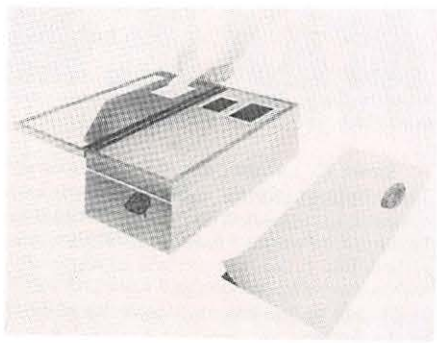

Thumb-printer stamps transport papers fast and economically

A state-of-the-art thumb-printing device that applies a thumbprint to documents of any size—permanently, hygienically, quickly and economically—has been introduced by Veriprint Systems Corp. The device, called Veriprint, is said to be ideal for the transportation industries for traffic control, personnel access, warehousing, inventory control and freight and transportation security systems of all kinds. Veriprint features simple operation employing a minimum of training, service-free graphic duplication engineering, less than a quarter of one cent cost per thumbprint, and a non-ink, fast-drying process for safe, hygienic operation.

Circle 61 on reader service card

Improvements announced for trailer refrigeration units

Carrier-Transicold Co.'s 1974 lineup of trailer refrigeration units includes two key product improvements that also may be installed on existing equipment: Spin-on lubrication oil and fuel filters are being installed on all nose-mount and undermount units, and neoprene coolant hoses are being replaced with hoses made of the more durable rubber-like material EPDM.

Spin-on filters involve fewer lines and connections and provide quicker, easier and cleaner filter changing. The new hoses—which have a higher burst pressure and greater strength, especially at high temperatures—will outlast neoprene hoses, thereby helping to cut users' maintenance costs. The new hoses are being stocked at the company's service/parts centers for users who wish to replace neoprene hoses on older units.

Circle 62 on reader service card

NEW LITERATURE

RAILROAD WORDS. The Grand Trunk Western has issued a booklet defining railroad words and terms. Called "Rail Lingo," the booklet is available from the railroad's superintendent rules & training.

Circle 70 on reader service card

METRIC SYSTEM. J.J. Keller & Associates, Inc., has announced publication of the "Metric System Guide—Vol. 1." The guide provides basic background information for understanding and evaluating problems involved in metrication for the U.S.

Circle 71 on reader service card

TIE-DOWN SYSTEMS. Aeroquip Corp. has released a bulletin which outlines four tie-down systems for flatbed trailers that will secure most common load configurations.

Circle 72 on reader service card

CLEANING PRODUCTS. A brochure describing Cee Bee brand cleaning products for trains, trucks and airplanes has been issued by Chemetron Corp.'s Inorganic Chemicals division. The 16-page illustrated brochure includes a chart for easy reference to products specifically made for various parts of transportation vehicles.

Circle 73 on reader service card

TRANSPORT FACILITIES. A comprehensive report has been prepared by the Kentucky Department of Commerce on rail, water, highway and air transportation facilities and connections in eastern and central U.S. The 38-page survey includes nine detailed maps and 20 statistical tables covering all modes of transportation related to Kentucky and its neighboring states.

Circle 74 on reader service card

RECORDER. A new bulletin describes Vapor Corp.'s magnetic tape speed and distance recorder. Its reusable magnetic tape cartridge collects data on speed, distance traveled and a choice of up to eight operating events for up to 1,800 miles in a single pass of the continuous tape loop.

Circle 75 on reader service card

ALARM SYSTEMS. A new 176-page illustrated guidebook that covers the selection, installation and maintenance of business and home security systems has been announced by Mountain West Alarm. Entitled "Fire & Theft Security Systems," the paperback book costs $4.95.

Circle 76 on reader service card

WELDING. The Chemical and Metallurgical Division of GTE Sylvania Inc. has issued a pocket-size Tungsten Inert Gas Arc Welding Guide for welding titanium, magnesium, aluminum, deoxidized copper and stainless steel.

Circle 77 on reader service card

MEASURING SOUND. An 8-page, 4-color brochure on its line of sound measuring, monitoring and recording equipment designed to meet OSHA and similar noise pollution control requirements has been issued by Triplett Corp.

Circle 78 on reader service card

UNSHAKEABLE FASTENERS. An 8-page catalog with detailed drawings from Townsend/TRS Division of Townsend Co. shows how to achieve vibration-resistant fastening. The catalog features a special section devoted to the Townsend/TRS system as it applies to the railroad industry.

Circle 79 on reader service card

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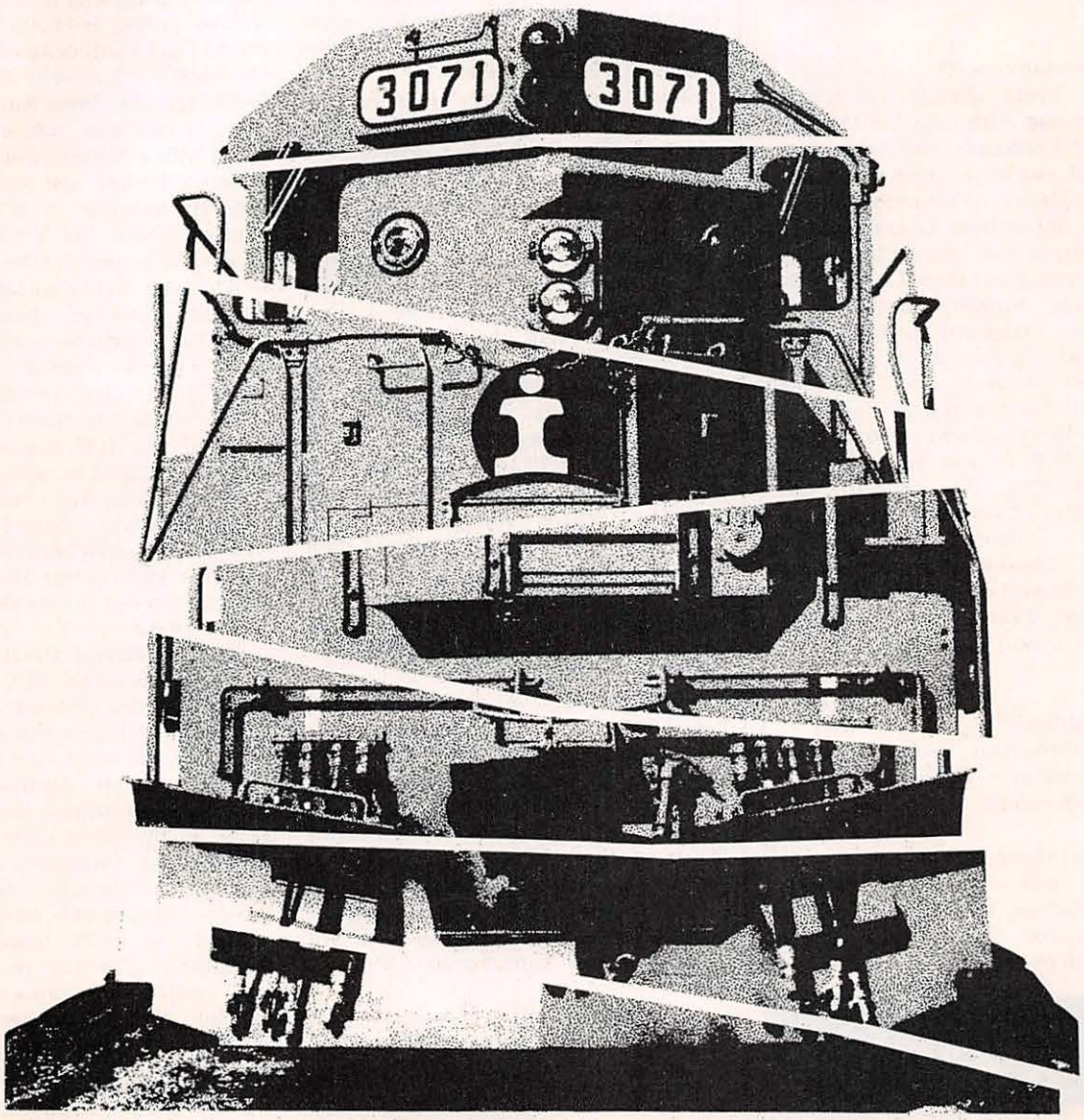

It has never been so urgent to train and upgrade employes ---or so easy!

. . .Or so inexpensive!

Home-study courses, tailored to the different needs of the maintenance-of-equipment department, can develop skilled journeymen from your present force of unskilled labor. It can cost as little as $6 per trainee. The Railway Educational Bureau provides the courses, and does the grading.

Many railroads use it!

The Bureau already has formal arrangements with about a third of the Class I railroads, and, with many industrial and other short-line roads. The completion of four-year courses qualifies apprentices as journeymen. Some roads use accelerated programs, turning out skilled machinists, electricians, carmen, car inspectors and other craftsmen in as little as three years. In the case of especially responsive students, two years in sufficient for the regular four-year course. Many other railroads use shorter REB courses for upgrading and refreshing. The Bureau also offers four two-year courses, as follows: Locomotive Engineers, covering diesel-electric equipment and air brakes; Locomotive Electrical Equipment; Locomotive Mechanical Equipment; and Car Inspectors and Carmen.

Who Qualifies?

Any railroadman. Courses are written for employes with a high school level of education.

For more information

Write now, or phone, Gary Vicker, Railway Educational Bureau, 1809 Capitol Ave., Omaha, Nebr. 68102, telephone (402) 341-7889.

Railway Educational Bureau

Amtrak's new funding legislation got through Congress and it got the President's signature; he wasn't happy with it, but he signed it and as he did he also commented on the need for increased reliance on rail passenger service in view of the energy crisis. Amtrak moved in strong fashion to get new locomotives into service, and it placed orders for Metroliner-type equipment. Turbo service began in the Midwest, between Chicago and St. Louis (but not between Milwaukee and St. Louis via Chicago as originally planned), as Amtrak got two French-built trains into operation. And finally, Amtrak was perhaps being viewed by railroads in a somewhat different light. The point: While railroads have long struggled against a "passenger" image—with the public associating railroads with a part of the service that produced 5% or less of revenue—the energy crisis may be giving rail passenger service (and, by extension, railroad service generally) a boost in public esteem.

On the hardware side, Amtrak wound up '73 with a total program then including 150 diesel-electric units, 26 straight electrics and 57 Metroliner-type coaches, plus its refurbishing program on the 1,600 cars acquired from the railroads when it opened for business.

Still in the future were orders for new "conventional" passenger cars, for which Amtrak had asked designers to submit plans covering cars easily adaptable to a number of different configurations.

Late in the year, new designs did come from two firms—Louis T. Klauder and Associates and Coverdale & Colpitts—but Amtrak did not make an immediate decision. Two or three years will elapse between the time cars of a totally new design are ordered and the time they are delivered. Amtrak's needs at the end of 1973 appeared to be more urgent than such a timetable could satisfy: while Amtrak patronage throughout most of the year had risen at a more or less steady 12%, the increase at yearend was closer to 25%. It seemed likely that Amtrak might try to purchase new cars of existing design at the outset, possibly even from Europe, for comparatively fast delivery. This did not, however, preclude an ongoing effort to produce a brand new car. Whatever the design, whoever the supplier, one thing was clear: intercity passenger service became again, in 1973, a major factor in the equipment marketplace. An Amtrak spokesman estimated that the corporation would acquire as many as 1,000 new cars over the next five years, at a cost approaching $500 million.

Predictably, Amtrak spent quite a bit of time in '73 in dealing with the ICC, Congress and the courts.

In one ICC ruling, it came off a loser, with the Commission ruling that it must substantially increase its payments to Penn Central for operation of passenger trains in the Northeast Corridor, with an increase also mandated for operations outside the Corridor. At yearend, however, that situation still awaited a final resolution.

Amtrak had a couple of things going, as regards mail carriage. It was suing the Washington Terminal, plus its owner and contract roads, alleging deprivation of mail revenue (and also rate discrimination and the hampering of train service). It was going before Congress, asking for a bigger share of U.S. Postal Service business.

In an arbitration proceeding, Amtrak got a favorable ruling—which could have far-reaching effects—in a case involving Illinois Central Gulf and roadway maintenance. But, perhaps the most important victory for Amtrak in 1973 was the one involved with the '73 funding legislation.

In dollar terms, the compromise bill authorized Amtrak to spend $154 million (including $107.3 million in new funding) and it increased Federal loan guarantee authority from a former $250-million ceiling to $500 million. It reduced DOT's authority over Amtrak and increased the authority of the ICC. The legislation also froze Amtrak routes for a year, and this was one provision—along with a reduction in the Executive branch's budget and legislative control and an increase in ICC's regulatory control—which the President objected to, even as he signed the measure.

The new legislation, in addition, got into the auto-ferry question, with results that remain to be assessed. Amtrak will now be allowed to enter into auto-ferry service, as will railroads not under contract to Amtrak and non-railroads if the ICC approves (with the private organization which started it all on a firm basis, Auto-Train, included as a non-railroad). Auto-Train's success with its operation between the Washington area and central Florida has given birth to interest in similar operations on other routes.

And at yearend, the ICC got into the passenger-service act. ICC issued what is apparently the first set of regulations aimed at forcing service improvements. The rules, set to become effective April 1, 1974, affect Amtrak, contracting railroads, non-Amtrak roads and Auto-Train. At one point prior to creation of Amtrak, the Commission held that it didn't have authority to make such service-improvement rules as regarded railroads. In 1973, however, it issued regulations affecting reservations systems, ontime performance, food-and-beverage service, maintenance of connections (with penalties if they aren't met) and priorities as between passenger and freight trains. ■

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Circle 42 on Reader Service Card

People

CANADIAN NATIONAL.—Harold H. Weitzel, works manager, Transcona Shops, Winnipeg, Man., appointed general superintendent equipment, Praire Region, succeeding **Harry Taylor,** who has taken a leave of absence.

W.J. Ross has been named regional transportation officer, Winnipeg. Mr. Ross has been district superintendent, Zambia Railways, for three years, with CN's consulting division for service overseas.

CANADIAN NATIONAL-GRAND TRUNK WESTERN-DULUTH, WINNIPEG & PACIFIC-CENTRAL VERMONT.—Harold B. Lynch, district sales manager, Overland Park, Kans., transferred to Denver. Mr. Lynch's successor is **Leslie E. Zimpfer.** Effective Jan. 1, the Cedar Rapids, Iowa, freight sales agency abolished and its activities assigned to the Overland Park and Minneapolis agencies.

CHESSIE SYSTEM.—Donald S. Garda, general manager-labor relations, appointed assistant vice president-labor relations, with headquarters as before at Baltimore, Md.

CHICAGO & NORTH WESTERN.—Donald R. Freyer, assistant division manager-transportation, Chicago division, named division manager, Illinois division.

DELAWARE & HUDSON.—Christopher G. MacDermott, assistant chief mechanical officer, appointed superintendent of motive power. **John Cimko,** general car inspector, appointed superintendent of equipment. **Gerald E. Winters,** assistant to chief mechanical officer, named office manager, Mechanical Department. All have headquarters at Watervliet, N.Y.

Donald J. Harrigan appointed lieutenant of police, Watervliet.

DENVER & RIO GRANDE WESTERN.—G.J. Sheridan appointed assistant manager-equipment planning, Denver. **W.S. Halliburton** named pricing analyst, succeeding Mr. Sheridan.

FLORIDA EAST COAST.—R.L. Hines, assistant general freight agent, St. Augustine, Fla., promoted to general freight agent there. **C.S. Owens** appointed senior district sales manager, Hialeah, Fla. **R.J. Jones** named district sales manager, Hialeah.

GRAND TRUNK WESTERN.—Frank J. Surmacz named manager of real estate and tax, Detroit, succeeding **William P. Collins,** who is on leave of absence.

MISSOURI-KANSAS-TEXAS.—Harold L. Gastler named vice president-Executive Department, Dallas.

NORFOLK & WESTERN.—Raymond H. Hill, Jr., system manager-pricing and marketing, Roanoke, promoted to assistant vice president-pricing and marketing. **John W. Hanna,** manager of pricing and marketing, named director of pricing and marketing. **Redmond T. Adams, Jr.,** manager of pricing and marketing, named assistant to the vice president.

Donald M. DeVore, manager of traffic data, named regional manager, merchandise

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W-115 Circle 44 on Reader Service Card

Harold L. Gastler
M-K-T

Jervis H. Langdon, Jr.
PC

Robert W. Blanchette
PC

Albert M. Schofield
PC

Richard B. Hasselman
PC

Douglas G.K. Wilmot
Portec

sales offices in Virginia, West Virginia, North and South Carolina, at Roanoke, succeeding **James A. Grasty,** who retired Jan. 1, after 48 years of service.

PENN CENTRAL.—As reported in RA, Jan. 14, p. 8, **Jervis H. Langdon, Jr.,** is the new PC president and chief executive officer and he has been succeeded as trustee by **Robert W. Blanchette,** who was counsel to the trustees.

Albert M. Schofield, vice president-reorganizational planning, Philadelphia, named senior vice president-operations, succeeding **J. Bruce Addington,** whose retirement because of physical disability was announced previously. **Richard B. Hasselman,** assistant vice president-transportation, appointed vice president-transportation.

Benjamin J. Gordon, chief engineer-maintenance of way, becomes chief engineering officer with principal responsibility for maintenance of way, construction and signal systems, succeeding **Charles T. Popma,** named an engineering assistant to Mr. Schofield.

Edward L. Claypole and **Edward P. Frasher,** assistant vice presidents-operations - East and West, respectively, have been reassigned to Mr. Hasselman's staff, remaining assistant vice presidents, and their former positions abolished. The general managers of PC's six operating regions will report directly to Mr. Schofield.

SANTA FE.—Michael R. Haverty, assistant superintendent, Richmond, Calif., advanced to superintendent, Emporia, Kans. **Glenn E. Young,** trainmaster, San Bernardino, Calif., succeeds Mr. Haverty.

Effective Jan. 1, Santa Fe established an intermodal traffic section within the freight traffic department. **Martin A. Brieschke** named manager-intermodal traffic to head the new operation. Mr. Brieschke, formerly general manager, mail and express traffic, Chicago, will be responsible for piggyback sales and service, international sales, and mail and express traffic.

SOUTHERN.—James L. Tapley, general solicitor, Washington, D.C., appointed assistant vice president-law. **Earl M. Schramm, William P. Stallsmith, Jr.,** and **R. Allen Wimbish,** general attorneys, appointed senior general attorneys.

SOUTHERN PACIFIC.—Joseph W. Murphy, assistant vice president-traffic (administration), retired Dec. 31 after more than 47 years of service.

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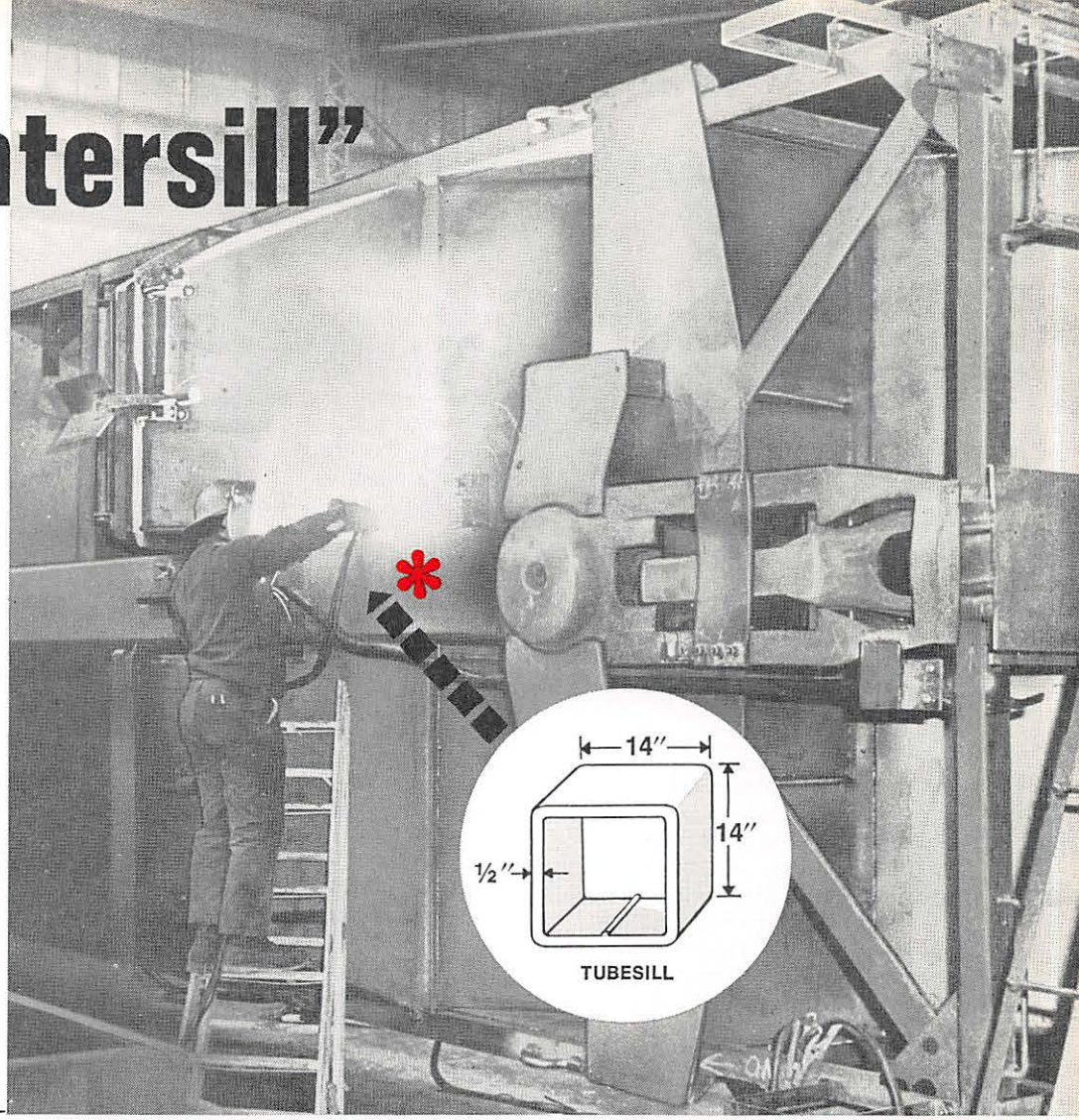


James B. Hickey
Kemlite

James W. Lawson
True Temper

Dr. W.P. Manos
P-S

Thomas B. O'Rourke
P-S

STATE OF NEW JERSEY.—**Alan Sagner,** a homebuilding executive who was chairman of Gov. Brendan T. Byrnes's campaign finance committee, has been appointed State Commissioner of Transportation, succeeding **John Kohl.**

TERMINAL RAILROAD ASSN. OF ST. LOUIS—**John B. Buffalo,** vice president-operations and maintenance, **Rock Island,** Chicago, elected president of the TRRA, St. Louis, succeeding **William F. Thompson,** who joined the **St. Louis-San Francisco** Jan. 1 as senior vice president-operations.

L.H. Shelby named chief of police.

UNION PACIFIC.—**C. Barry Schaefer,** western general counsel, Omaha, Neb., elected vice president and western general counsel.

Paul J. Coughlin, Jr., assistant general counsel, elected general counsel. **Kendor P. Jones,** general corporate attorney, appointed assistant general counsel, to succeed Mr. Coughlin.

Alfred D. Williams, engineer of tests, named to the newly established position of fuel engineer, Omaha.

Scott L. Smith, assistant manager-trailer traffic sales, appointed manager-trailer traffic sales, Omaha, to succeed **Donald E. Ingman,** retired.

WHITE PASS & YUKON ROUTE.—**Richard A. Hubber-Richard** named president and a director, at Vancouver, B.C., succeeding **Albert P. Friesen,** who resigned but remains a director. **S.A. Searle Jr.** was named chairman in November. Mr. Hubber-Richard was formerly president of Neptune Terminals Ltd., which is owned by Federal Industries Ltd., of which Mr. Searle is president and chief executive.

SUPPLIERS

Douglas G.K. Wilmot has been appointed general manager, **Railway Products Division, Portec, Inc.,** Oak Brook, Ill. He was formerly general manager, **General Steel Castings Corp.,** Granite City, Ill.

James B. Hickey, marketing manager, **Kemlite Corp.,** has been elected vice president marketing.

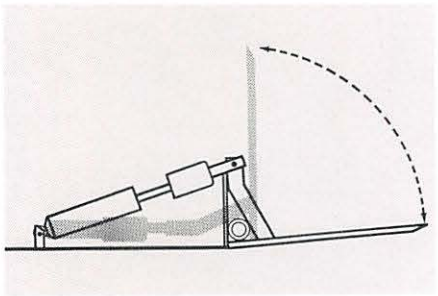
James W. Lawson, general sales manager, **True Temper Corp.,** Cleveland, has been appointed general manager-Railway Appliance Division, succeeding **Robert J. Whalen,** who retired Jan. 1. Mr. Lawson will be responsible for divisional operations and sales and will be assisted by **G.A. Lieb,** manufacturing manager of the Division.

Dr. W.P. Manos has been named vice president, research and development, **Pullman-Standard division** of **Pullman Incorporated.** Dr. Manos, formerly director of research and development, will continue to make his headquarters at Hammond, Ind.

Thomas B. O'Rourke, editor of employee publications, has been named manager of public relations.

Kenneth Jagger, executive vice president,
(continued on page 88)

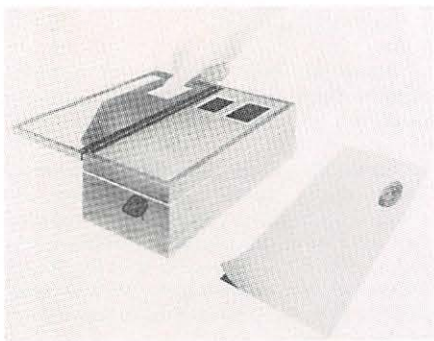
New Products Report



Dock levelers feature new exclusive lip support mechanism

An exclusive new Hydrachek lip support has been announced by Rite-Hite Corp. for its lines of upward biased fully-mechanical hinged lip dock levelers. A pull of the lanyard releases the hold-down mechanism and the spring counterbalance system automatically raises the platform to its high point and extends the lip section with a minimum of operational violence. The Hydrachek lip-support mechanism consists of parallel hydraulic dampers that support the extended lip for up to 15 seconds while the dock attendant walks the platform down to the truck bed. Hydrachek test results indicate over 20,000 operating cycles were achieved without any significant loss of cylinder pressure in operating temperatures from -10 deg. F. to +100 deg. F. After truck departs, or if platform was never walked down, the lip section automatically retracts to pendant position, out of the way of incoming trucks and their cargo.

Circle 60 on reader service card



Thumb-printer stamps transport papers fast and economically

A state-of-the-art thumb-printing device that applies a thumbprint to documents of any size—permanently, hygienically, quickly and economically—has been introduced by Veriprint Systems Corp. The device, called Veriprint, is said to be ideal for the transportation industries for traffic control, personnel access, warehousing, inventory control and freight and transportation security systems of all kinds. Veriprint features simple operation employing a minimum of training, service-free graphic duplication engineering, less than a quarter of one cent cost per thumbprint, and a non-ink, fast-drying process for safe, hygienic operation.

Circle 61 on reader service card

Improvements announced for trailer refrigeration units

Carrier-Transicold Co.'s 1974 lineup of trailer refrigeration units includes two key product improvements that also may be installed on existing equipment: Spin-on lubrication oil and fuel filters are being installed on all nose-mount and undermount units, and neoprene coolant hoses are being replaced with hoses made of the more durable rubber-like material EPDM.

Spin-on filters involve fewer lines and connections and provide quicker, easier and cleaner filter changing. The new hoses—which have a higher burst pressure and greater strength, especially at high temperatures—will outlast neoprene hoses, thereby helping to cut users' maintenance costs. The new hoses are being stocked at the company's service/parts centers for users who wish to replace neoprene hoses on older units.

Circle 62 on reader service card

NEW LITERATURE

RAILROAD WORDS. The Grand Trunk Western has issued a booklet defining railroad words and terms. Called "Rail Lingo," the booklet is available from the railroad's superintendent rules & training.

Circle 70 on reader service card

METRIC SYSTEM. J.J. Keller & Associates, Inc., has announced publication of the "Metric System Guide—Vol. 1." The guide provides basic background information for understanding and evaluating problems involved in metrication for the U.S.

Circle 71 on reader service card

TIE-DOWN SYSTEMS. Aeroquip Corp. has released a bulletin which outlines four tie-down systems for flatbed trailers that will secure most common load configurations.

Circle 72 on reader service card

CLEANING PRODUCTS. A brochure describing Cee Bee brand cleaning products for trains, trucks and airplanes has been issued by Chemetron Corp.'s Inorganic Chemicals division. The 16-page illustrated brochure includes a chart for easy reference to products specifically made for various parts of transportation vehicles.

Circle 73 on reader service card

TRANSPORT FACILITIES. A comprehensive report has been prepared by the Kentucky Department of Commerce on rail, water, highway and air transportation facilities and connections in eastern and central U.S. The 38-page survey includes nine detailed maps and 20 statistical tables covering all modes of transportation related to Kentucky and its neighboring states.

Circle 74 on reader service card

RECORDER. A new bulletin describes Vapor Corp.'s magnetic tape speed and distance recorder. Its reusable magnetic tape cartridge collects data on speed, distance traveled and a choice of up to eight operating events for up to 1,800 miles in a single pass of the continuous tape loop.

Circle 75 on reader service card

ALARM SYSTEMS. A new 176-page illustrated guidebook that covers the selection, installation and maintenance of business and home security systems has been announced by Mountain West Alarm. Entitled "Fire & Theft Security Systems," the paperback book costs $4.95.

Circle 76 on reader service card

WELDING. The Chemical and Metallurgical Division of GTE Sylvania Inc. has issued a pocket-size Tungsten Inert Gas Arc Welding Guide for welding titanium, magnesium, aluminum, deoxidized copper and stainless steel.

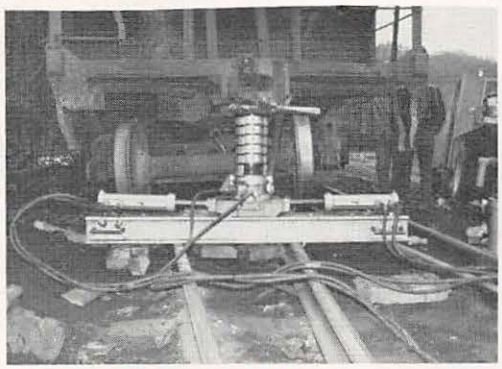
Circle 77 on reader service card

MEASURING SOUND. An 8-page, 4-color brochure on its line of sound measuring, monitoring and recording equipment designed to meet OSHA and similar noise pollution control requirements has been issued by Triplett Corp.

Circle 78 on reader service card

UNSHAKEABLE FASTENERS. An 8-page catalog with detailed drawings from Townsend/TRS Division of Townsend Co. shows how to achieve vibration-resistant fastening. The catalog features a special section devoted to the Townsend/TRS system as it applies to the railroad industry.

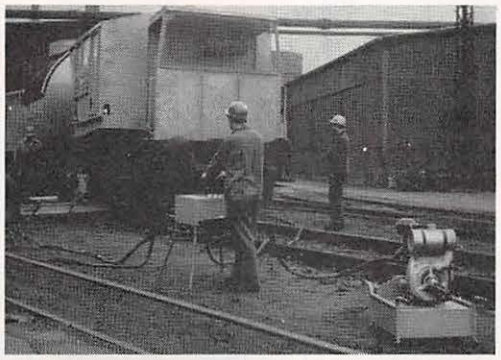
Circle 79 on reader service card



100 ton coal car with 66 ton multi-stage jack

Six-axle locomotive with 132 ton multi-stage jack

250 Ton Locomotive



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3. Reduced damage to cars and lading as compared with the use of the wreck crane—many cars not physically damaged in the derailment itself are damaged through the use of the big hook.
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At U.S. Steel, we design and make the products for car body construction—not cars themselves. The products they travel on are ours, though: USS wheels, axles and rails.

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USS EX-TEN 50 Steel (50,000 psi minimum yield point) for car body.

USS EX-TEN 60 Steel (60,000 psi minimum yield point) for sills and bolster.

USS United States Steel

(continued from page 83)

Procor Limited, an affiliate of Trans Union Corp., Oakville, Ont., Can., has been appointed president and chief executive officer, succeeding **Sidney H. Bonser,** who becomes chairman of the board of Procor and continues as senior vice president of Trans Union.

C.W. McCullough has been appointed assistant vice president-manufacturing, **American Steel Foundries,** Chicago. He was previously works manager at ASF's Hammond, Ind., plant.

Roland E. Cale, Jr., chief engineer, **Schaefer Equipment Co.,** Pittsburgh, Pa., has been elected vice president-engineering.

B.F.E. Bell has been appointed works manager, Alliance, Ohio, plant, **American Steel Foundries,** to succeed **Raymond J. Bossong,** retired. Mr. Bell was formerly assistant treasurer-works accounting, Chicago.

Curtis L. Anders has been appointed director of communications, **ACF Industries, Inc.,** New York. Mr. Anders was formerly a vice president at Carl Byoir & Associates, Inc.

John H. Snyder, director of purchasing, **Amcar Division,** has been appointed corporate director of material availability for **ACF Industries. Edward F. Finucane,** assistant director of purchasing and traffic, has been appointed acting director of purchasing, Amcar Division.

Plans for construction of a rail car repair facility at Bude, Miss., have been announced by J.D. Brinkerhoff, ACF Industries vice president and general manager, Shippers Car Line Division.

Bill W. Summers, assistant manager, East St. Louis (III) repair and maintenance facility operated by Shippers Car Line Division, has been appointed plant manager.

Fred N. LaCorte has been named sales manager, **Alco Spring Industries, Inc.,** Chicago Heights, Ill. He was previously regional sales manager.

Paul H. Vesey has been appointed director of operations and maintenance, **Intermodal Transportation Systems, Inc.,** Hoboken, N.J., and its wholly-owned subsidiaries, ATC Leasing Corp. and Continental Leasing Corp.

John J. Swiss, assistant district manager, has been promoted to district manager, **Edison Battery Division, McGraw-Edison Co.,** at San Ramon, Calif.

Harmon Industries, Inc., recently constructed a 24,000 sq. ft. building on a 24-acre site in Grain Valley, Mo., to accommodate the company's rapid expansion, especially in railroad electronics.

Fred C. Ayres, III, sales representative, **Okonite Co.,** Chicago, has been appointed manager-Milwaukee district, effective Jan. 1, succeeding **William E. Baker,** named manager-San Francisco district.

G. Lawrence Trenga has been appointed supervising engineer, **Union Switch & Signal Division** of **WABCO** at Swissvale, Pa. He will be responsible for all railroad classification yard software. Mr. Trenga was formerly systems analyst in the corporate data center, Monroeville, Pa.

Bill Hawes has been appointed division manager, **Transportation Management Services,** an operating unit of Transportation Systems, Inc., Minneapolis, Minn. Mr. Hawes has spent over 20 years in the transportation field working for both shippers and carriers.

Joseph F. Clayton has been appointed general manager, **Bendix Transportation Systems,** Ann Arbor, Mich. Mr. Clayton also has been named president of **Bendix Systems of Canada, Ltd.,** Toronto, Ont. He will continue as president, **Dashaveyor Co.,** another Bendix subsidiary.

Raymond Garvey has been appointed southeast area manager for **Intermodal Transportation Systems** and its subsidiary companies, **ATC Leasing Corp.** and **Continental Leasing Corp.** Mr. Garvey was previously general manager, Foley Warehousing, Norfolk Va.

Thomas Winterhalter has been appointed territory manager (sales), **Howard-Cooper Corp.,** working out of the Edison, N.J., office.

John P. Inman has been appointed president, **Scullin Steel Co.,** division of **Diversified Industries, Inc.,** St. Louis, Mo., succeeding **Harry L. Simmons,** retired. Inman had been president of Missouri Steel Casting Co. since 1970.

move tools and materials to and from maintenance areas the easy way...

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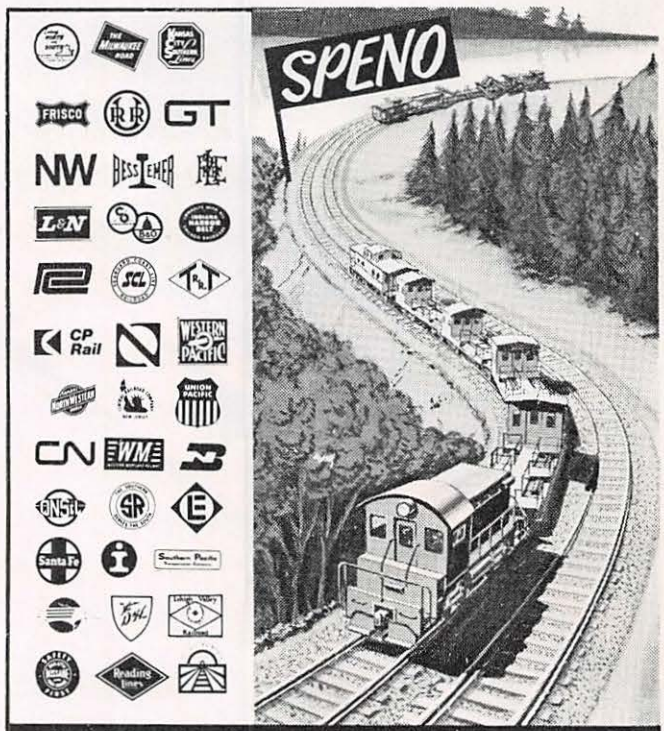

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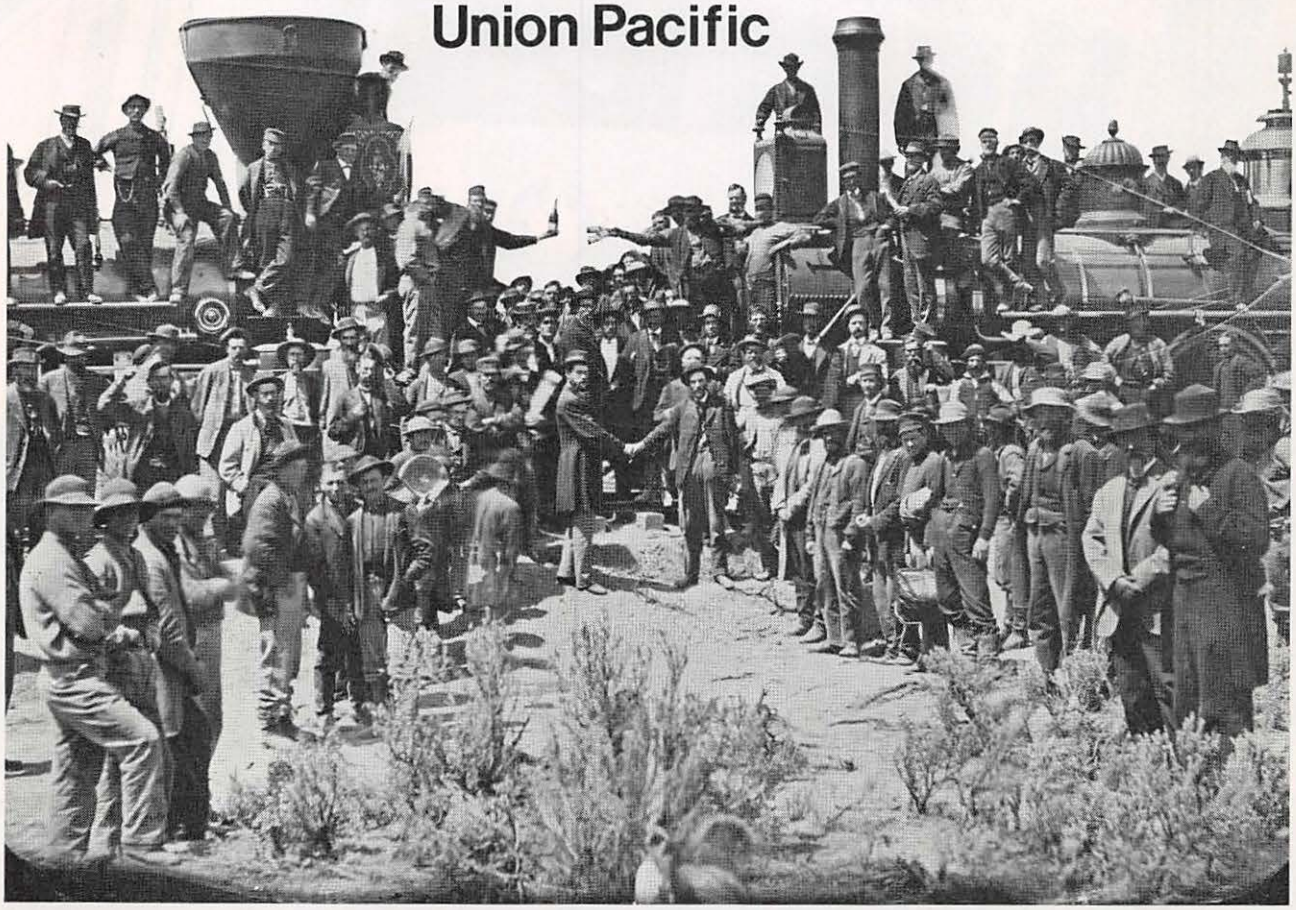
FMC Salutes

A Moment of Measurement of a Great American Railroad...

Union Pacific



A Country United

The date: May 10, 1869. The place: Promontory Summit, Utah. The Moment: Ten thousand men in 3½ years have built Union Pacific track from the Missouri River, west across raw wilderness for 1,086 miles to join the Central Pacific (now Southern Pacific) which has come 690 miles east from Sacramento. At 2:45 Eastern time a golden headed maul meets a final gold spike to the prayer: "May God continue the unity of our country as this railroad unites the two great oceans of the world" . . . and the final development of a great nation is underway with the creation of America's first transcontinental railroad.

FMC proudly salutes this historic moment in the life of Union Pacific Railroad.

Moments of measurement that receive acclamation and recognition are rare high points in the career of a company or individual. In reality, Moments of Measurement are check point pauses to appraise activities, and thus must be frequent occurrences in the pursuit of improvement and excellence in any field of endeavor. And so it is, that every day, Moments of Measurement in construction, production, and design help create the world's finest rail cars at FMC. FMC Marine & Rail Equipment Division, 4700 NW Front Avenue, Portland, Oregon 97208, PH: (503) 228-9281. Telex: 36-0672.

FMC Transportation Equipment

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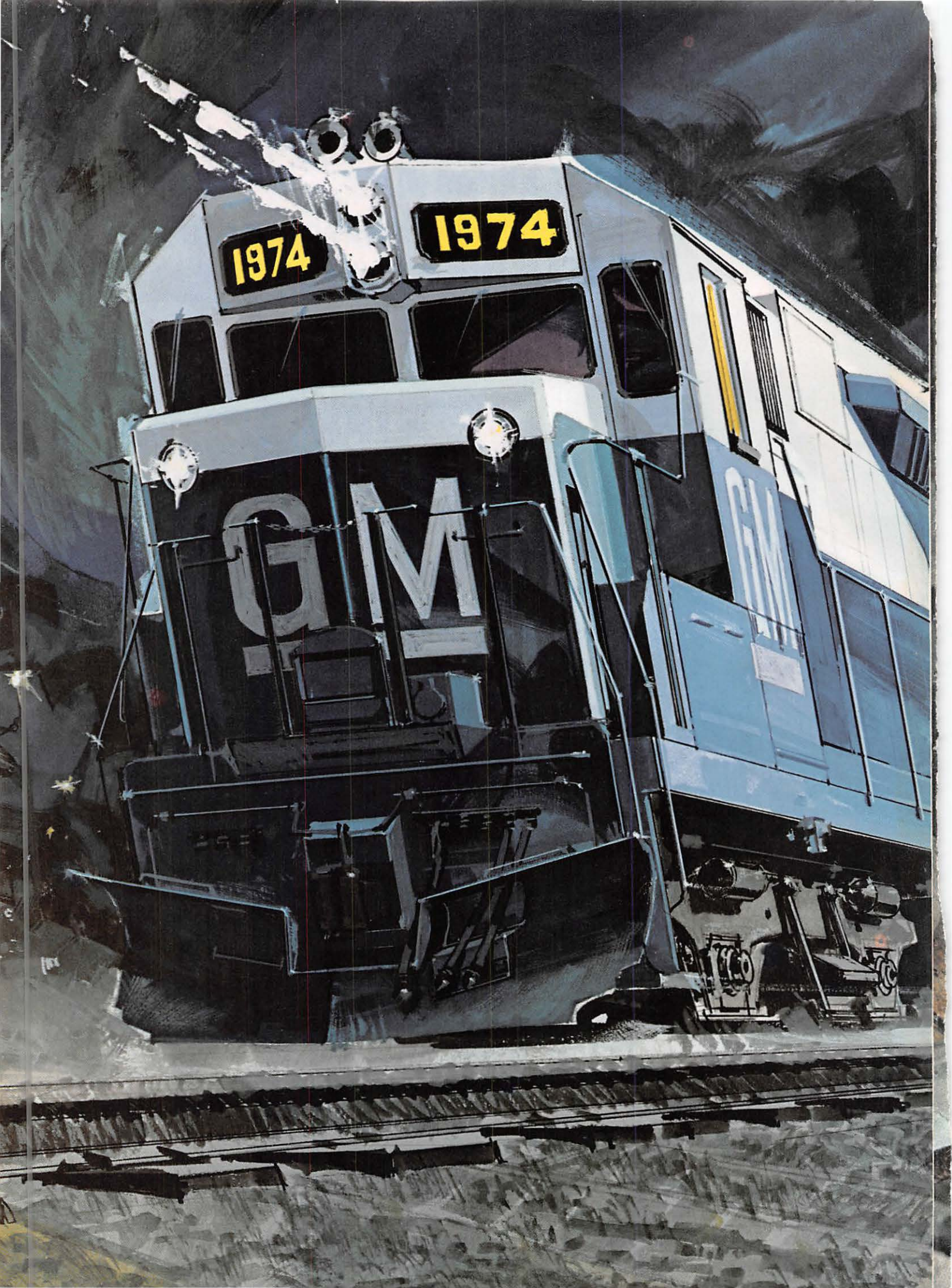
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Iron Horse, today

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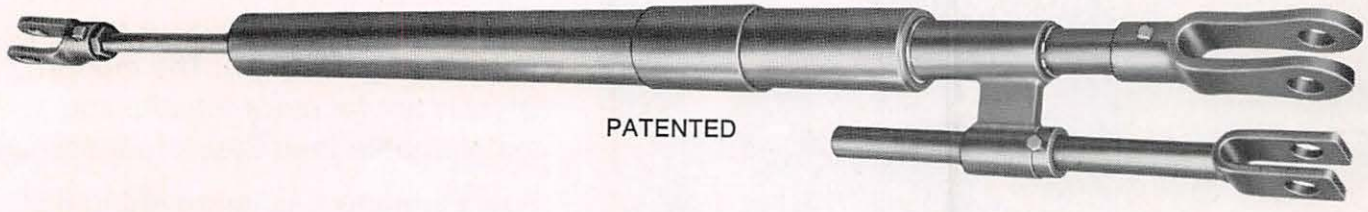

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1. Adjusts slack or clearance between brake shoes and wheels on all types of cars. As shoes wear, the adjuster automatically shortens. As new shoes are applied, the adjuster automatically lengthens.
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3. Withstands stresses encountered by freight cars under all conditions of service.
4. Its performance is service-proven. The finest materials, engineering know-how and workmanship, coupled with its unique cone clutch mechanism, have made the 1900-DJ Universal slack adjuster a reliable performer.
5. Offers economy and long life. In a foundation brake rigging properly applied to a car, the 1900-DJ will operate for many years with a minimum of attention.
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'73 review

Car and locomotive orders and signaling statistics

1973 FREIGHT-TRAIN CAR ORDERS

Purchaser	No.	Type	Capacity	Builder
American Electric Power Services	1500	Hopper	200,000	Bethlehem
	500	Hopper	200,000	Greenville
Atchison, Topeka & Santa Fe	1000	Cov. Hopper	200,000	ACF
	200	Box	200,000	ACF
	100	Wood Chip	200,000	Greenville
	8	Flat	140,000	P-S
	100	Box	200,000	P-S
	22	Box	200,000	P-S
	836	Cov. Hopper	200,000	P-S
	500	Box	200,000	P-S
	131	Ins. Box	200,000	Co. Shops
	116	Welded Rail Cars	.....	Co. Shops
	35	Flat	140,000	Bethlehem
	130	Flat	.....	Co. Shops
Baltimore & Ohio	89	High Cube Box	200,000	Greenville
	200	Cov. Hopper	200,000	P-S
Bethlehem Steel Corp.	15	Hopper	140,000	Bethlehem
Black Mesa & Lake Powell	3	Air Dump	154,000	Morrison-Knudsen (Difco)
	3	Hopper	244,000	FMC Corp.
Buncher Rail Car Service	25	Box	140,000	Berwick
Butler Mfg. Co.	125	Cov. Hopper	.....	North American
Boston & Maine	700	Box	140,000	Southern Iron & Equipment*
Burlington Northern	1000	Cov. Hopper	200,000	FMC Corp.
	680	Hopper	200,000	Greenville
	200	Box	200,000	Pacific Car
	100	High Cube Box	140,000	P-S
	125	Airslide Cov. Hopper	200,000	GATX
	200	Gondola Wood Chip	200,000	FMC Corp.
	100	Bulkhead Flat	140,000	Thrall
	50	Caboose	.....	Pacific Car
	500	Hopper	200,000	P-S
Chattahoochee Ind.	40	Rapid Discharge Hopper	200,000	Ortner
	100	Wood Rack	140,000	Ortner
Chesapeake & Ohio	65	Box	200,000	ACF
	185	Box	154,000	ACF
	200	Box	140,000	Berwick
	100	Coil Steel	200,000	U.S. Railway Equipment
	300	Coil Steel	200,000	Co. Shops
	30	Airslide Cov. Hopper	200,000	GATX
	75	Bilevel Rack	140,000	Darby
Chicago & Illinois Midland	2	Caboose	.....	International
Chicago & North Western	500	Cov. Hopper	200,000	P-S
	600	Box	140,000	P-S
	1000	Cov. Hopper	200,000	P-S
	600	Box	140,000	ACF
Chicago Freight Car Co.	720	Cov. Hopper	200,000	P-S
Chicago, Milwaukee, St. Paul & Pacific	100	Box	200,000	Pacific Car
	100	Box	140,000	Pacific Car
	100	Mech. Refrig.	140,000	Pacific Car
	25	Airslide Cov. Hopper	200,000	GATX
	500	Cov. Hopper	200,000	P-S
	50	Ballast	200,000	Bethlehem
	25	High Cube Box	200,000	Thrall
	15	Caboose	.....	International
Chicago, Rock Island & Pacific	500	Cov. Hopper	200,000	P-S
Denver & Rio Grande Western	40	Gondola	200,000	Thrall
	75	Ballast	200,000	Greenville
	70	Cov. Hopper	200,000	FMC
	70	Cov. Hopper	200,000	ACF
	115	Hopper	200,000	Bethlehem
	250	Ins. Box	200,000	Fruit Growers†
Detroit, Toledo & Ironton	100	Cov. Hopper	200,000	ACF
	75	Box	154,000	P-S
	75	Box	150,000	P-S
	135	Box	148,000	Thrall
	6	Caboose	.....	International
Duluth, Missabe & Iron Range	100	Hopper	140,000	Greenville
	20	Caboose	.....	International
E.I. DuPont de Nemours	278	Tank	200,000	GATX
Elgin, Joliet & Eastern	50	Coil Cars	200,000	U.S. Railway
Emmons Industries	100	Box	140,000	Berwick
Erie Lackawanna	750	Hopper	154,000	Greenville
	45	Box	188,000	P-S
Excavation Construction, Inc.	50	Air Dump	200,000	Difco, Inc.
Family Lines System*	300	Cov. Hopper	200,000	P-S
	50	Box	180,000	P-S
	200	Box	200,000	P-S
	200	Hinged Roof Gondola	200,000	Bethlehem

*Leased

*Includes Seaboard Coast Line, Louisville & Nashville, Georgia, Clinchfield and West Point Route

†Leased

1973 FREIGHT-TRAIN CAR ORDERS *(continued)*

Purchaser	No.	Type	Capacity	Builder
	200	Hopper	200,000	Co. Shops
	1000	Cov. Hopper	200,000	P-S
	210	RBL Box	180,000	Fruit Growers
	90	RBL Box	140,000	Fruit Growers
	4	Heavy Duty Flat	320,000	Maxson Corp.
	375	Wood Chip	200,000	Greenville
	350	Pulpwood	154,000	Bethlehem
	300	Box	154,000	P-S
	150	Cushion Box	154,000	P-S
	850	Box	154,000	P-S
Federal Paper Board Co.	18	Wood Chip	200,000	FMC
Florida East Coast	150	Hopper	200,000	Greenville
	50	Gondola	200,000	Thrall
	8	High Cube Box	140,000	ACF
	8	Ins. Box	140,000	U.S. Railway
Fruit Growers Express Co.	100	RPL Box	200,000	Co. Shops
	200	RB Box	140,000	Co. Shops
	181	RBL	140,000	Co. Shops
	210	RBL	200,000	Co. Shops
Genesee & Wyoming	5	Box	140,000	Berwick
Georgia Railroad	160	Rapid Discharge Hopper	200,000	Ortner
Georgetown Railroad	100	Rapid Discharge Hopper	200,000	Ortner
Green Bay & Western	4	Box	140,000	Thrall
Illinois Central Gulf	10	Box	200,000	Thrall
	7	Box	200,000	Greenville
	600	Cov. Hopper	200,000	P-S
	100	Box	200,000	Co. Shops
	200	Gondola	200,000	Co. Shops
	200	Pulpwood	140,000	Co. Shops
Indiana Power & Light Co.	122	Hopper	200,000	Bethlehem
Indiana Public Service	1	Caboose	100,000	International
Kansas City Southern	10	Tank	200,000	ACF
Lake Superior & Ishpeming	10	Box	140,000	P-S
Laurinburg & Southern	15	Cov. Hopper	200,000	Bethlehem
Maine Central	250	Box	154,000	FMC Corp.
	1	Caboose	.....	International
Marbon Chemical	20	Cov. Hopper	200,000	North American
Minneapolis, Northfield & Southern	6	Flat	140,000	Thrall
Missouri Pacific System	250	Hopper	200,000	Bethlehem
	700	Cov. Hopper	200,000	ACF
	50	Box	140,000	ACF
	12	High Cube Box	200,000	Greenville
	500	Gondola	200,000	Thrall
	300	Hopper	200,000	Bethlehem
	250	Box	140,000	Berwick
	450	Box	140,000	ACF
	700	Box	200,000	ACF
	200	Cov. Hopper	200,000	ACF
	100	Flat	200,000	Thrall
	60	Caboose	.....	International
National Railway Utilization Corp.	50	Box	140,000	Berwick
Norfolk & Western	100	Box	140,000	P-S
	28	Box	200,000	Greenville
	1000	Cov. Hopper	200,000	Co. Shops
	106	Box	200,000	Thrall
	125	Box	200,000	P-S
	44	Box	200,000	P-S
	291	Flat	140,000	P-S
	148	Flat	140,000	Bethlehem
	1	Scale Test	.....	Maxson Corp.
Norfolk Southern	150	Cov. Hopper	100,000	U.S. Railway
North American Car	1107	Tank	200,000	North American
	2077	Tank	200,000	North American
	56	Tank	315,000	North American
	1370	Cov. Hopper	.....	North American
	2900	Cov. Hopper	200,000	P-S
	182	Box	140,000	Thrall
	300	Cov. Hopper	200,000	Bethlehem
	1	Cov. Hopper	.....	GATX
	200	Cov. Hopper	200,000	National Steel
	310	Flat Cars	.....	Marine Ind.
	500	Cov. Hopper	.....	National Steel
	40	Flat	.....	Marine Ind.
	100	Tank	.....	Hawker Siddeley
	40	Tank	.....	Procor
North American Car (Canada)	300	Cov. Hopper	200,000	Bethlehem
Penn Central	277	Box	200,000	P-S
	300	Cov. Hopper	200,000	P-S
	10	Heavy Duty Flat	300,000	Maxson Corp.
	200	Cov. Hopper	200,000	Butler Mfg. Co.
Pennsylvania Power & Light Co.	105	Hopper	200,000	Bethlehem
Pittsburgh & Lake Erie	1100	Gondola	200,000	Greenville
Pittsburg & Shawmut	200	Hopper	200,000	Greenville
Richmond, Fredericksburg & Potomac	25	RBL Refrig.	140,000	Fruit Growers
	100	Box	140,000	Berwick
Sandersville Railroad	100	Cov. Hopper	200,000	P-S
St. Louis-San Francisco	135	Box	140,000	ACF
	400	Box	140,000	P-S
	100	Ins. Box	140,000	Pacific Car
	300	Cov. Hopper	200,000	P-S
	150	Cov. Hopper	200,000	ACF
Soo Line	80	Caboose	.....	International
	200	Cov. Hopper	200,000	ACF
	25	Bulkhead Flat	.....	Thrall
	25	Gondola	.....	Thrall
	25	Ins. Box	140,000	Co. Shops
	100	XM Box	140,000	Co. Shops
Southern Railway System	181	Hopper	200,000	Ortner
	30	Box	200,000	Greenville
	10	Box	200,000	Thrall
	650	Wood Chip	200,000	Greenville
	400	Hopper	200,000	Greenville
	500	Cov. Hopper	200,000	ACF
	100	Bulkhead Flat	200,000	Greenville
	1650	Box	140,000	P-S
	150	Box	200,000	P-S
	140	Gondola	200,000	Greenville
	60	Cov. Gondola	200,000	Greenville
	50	Ballast	200,000	Greenville

Purchaser	No.	Type	Capacity	Builder
	8	Tank	200,000	ACF
	4	Flat	400,000	Maxson Corp.
	19	Air Dump	200,000	Difco
	32	Caboose	.....	Gantt Mfg.
Southern Pacific	350	Flat	140,000	ACF
	12	Bulkhead Flat	200,000	ACF
	125	Gondola	200,000	Thrall
	779	Cushion Box	140,000	Pacific Car
	1100	Cushion Box	140,000	FMC
	200	Ins. Box	140,000	Pacific Car
	25	Bulkhead Flat	200,000	Thrall
	400	Cushion Box	140,000	Pacific Car
	67	Cabooses	.....	International
	50	Tank	200,000	ACF
	250	Cushion Box	200,000	Pacific Car
	500	High Roof Cushion Box	140,000	FMC
	100	Flat	140,000	Bethlehem
	200	Cushion Box	140,000	FMC
	400	Gondola	200,000	Thrall
	700	Hopper	200,000	Greenville
	200	High Roof Box	140,000	Pacific Car
	100	Flat	140,000	Bethlehem
	100	Flat	140,000	ACF
	921	Cushion Box	140,000	Pacific Car
	700	Insulated Cushion Box	140,000	Pacific Car
	250	Cov. Hopper	140,000	ACF
	100	Insulated Cushion Box	200,000	Pacific Car
	250	Cov. Hopper	200,000	ACF
	43	Flat	140,000	P-S
Texas Utilities Services Co., Inc.	8	Air Dump	154,000	Difco
Toledo, Peoria & Western	30	Cov. Hopper	200,000	P-S
Trailer Train Co. .	1160	Flat	140,000	ACF
	3582	Flat	140,000	Bethlehem
	471	Flat	180,000	Bethlehem
	2046	Flat	140,000	P-S
	1065	Flat	110,000	P-S
	463	Flat	140,000	Thrall
Union Carbide Corp.	95	Tank	200,000	GATX
Union Pacific ...	1850	Cov. Hopper	200,000	P-S
	1000	Hopper	200,000	Bethlehem
	20	Airslide Cov. Hopper	200,000	General American
	25	High Cube Box	200,000	Thrall
	400	Ins. Box	140,000	Pacific Car
	100	Ins. Box	200,000	Pacific Car
	350	Box	200,000	FMC
	75	Box	140,000	FMC
	15	High Roof Box	200,000	P-S
	5	Flat	200,000	Maxson Corp.
	600	Box	140,000	Co. Shops
	100	Flat	200,000	Co. Shops
Union Tank Car Co.	100	Wood Chip	140,000	FMC Corp.
U.S. Railway Equipment ...	1150	RBL Box	140,000	U.S. Railway
	150	Coil Steel Flat	200,000	U.S. Railway
	1000	Cov. Hopper	200,000	U.S. Railway
Val-U-Hi Supply Co.	5	Cov. Hopper	140,000	FMC
Vulcan Materials Co.	90	Hopper	200,000	Greenville
Western Pacific ..	2	Depressed Center Flat	300,000	Maxson Corp.
	30	Hopper	200,000	Maxson Corp.
	40	Gondola	200,000	Thrall
	5	Cov. Gondola	200,000	Thrall
	12	Wood Chip	200,000	Maxson Corp.
	25	High Cube Box	200,000	Thrall
	200	RBL Box	140,000	Pacific Car
	50	RBL Box	200,000	Pacific Car
	65	Cov. Hopper	200,000	ACF
	115	Hopper	200,000	Midwest Freight Car
	10	RBL Box	200,000	Pacific Car
	5	Caboose	.....	International
Western Maryland	50	Cov. Hopper	200,000	ACF
Weyerhaeuser Co..	50	Wood Chip	200,000	Greenville
Various Industrial	3680	Cov. Hopper	200,000	ACF
	2884	Tank	200,000	ACF
	50	Cov. Hopper	200,000	ACF
	348	Tank	200,000	GATX
	723	Rapid Discharge Hopper	200,000	Ortner
	196	Rapid Discharge Hopper	200,000	Ortner
	115	Wood Chip	200,000	Ortner
	203	Log Cars	200,000	Ortner
	3	Cask	300,000	Ortner
	2	Caboose	.....	Ortner
	25	Wood Chip	200,000	Ortner
	43	Hopper	200,000	Ortner
	9491	Cov. Hopper	200,000	P-S
	277	Box	200,000	P-S
	550	Box	140,000	Thrall
	30	Bulkhead Flat	140,000	Thrall
	242	Cov. Hopper	140,000	Thrall
	780	Unit Train	200,000	Thrall
	1884	Tank	.....	Various

1973 DOMESTIC LOCOMOTIVE ORDERS

Purchaser	No.	Type	Horsepower	Builder
Amtrak	110	C-C	3,000	EMD
	26*	C-C	6,000	GE
Armco Steel	3	B-B	1,500	EMD
Atchison, Topeka & Santa Fe	27	C-C	3,600	GE
	43	C-C	3,600	EMD
Bessemer & Lake Erie	9	C-C	2,000	EMD
Birmingham Southern	5	B-B	1,000	EMD
Boston & Maine ...	12	B-B	2,000	EMD
Burlington Northern	55	C-C	3,000	GE
	35	C-C	3,000	EMD
	10	C-C	3,000	EMD
Chicago & Illinois Midland	6	C-C	2,000	EMD
Chicago & North Western	65	C-C	3,000	EMD
Chicago, Rock Island & Pacific ...	18	C-C	3,000	GE
	10	C-C	3,000	EMD
Detroit, Toledo & Ironton	8	B-B	3,000	EMD
Elgin, Joliet & Eastern	5	B-B	2,000	EMD
Ford Motor Corp.. . .	2	B-B	1,000	EMD
Georgia Power.	1	B-B	1,500	EMD
Kansas City Southern	10	C-C	3,000	EMD
	10	B-B	2,000	EMD
Missouri-Kansas-Texas	3	B-B	2,250	GE

1973 DOMESTIC LOCOMOTIVE ORDERS *(continued)*

Purchaser	No.	Type	Horsepower	Builder
Missouri Pacific System	74	C-C	3,000	EMD
	5	B-B	1,500	EMD
	11	C-C	3,000	GE
Norfolk & Western	28	C-C	3,000	EMD
	3	C-C	3,000	GE
Penn Central	24	B-B	1,500	EMD
	9	B-B	2,000	EMD
	27	B-B	2,250	GE
Phelps Dodge Corp.	3	B-B	2,000	EMD
Public Service of Colorado	1	B-B	1,500	EMD
Reading	25	B-B	1,500	EMD
	5	B-B	3,000	EMD
St. Louis-San Francisco	47	B-B	2,000	EMD
	14	B-B	3,000	GE
Family Lines System**	20*	B-B	2,250	GE
	25*	B-B	2,000	EMD
	31	B-B	2,000	EMD
	80	B-B	1,800	GE
	15	C-C	3,600	EMD
Soo Line	8	C-C	3,000	EMD
Southern Railway System	95	B-B	2,000	EMD
	27	C-C	3,000	EMD
	3	B-B	1,500	EMD
	20	B-B	2,250	GE
Southern Pacific	10	...	1,500	EMD
	8	...	3,300	GE
	12	...	3,600	EMD
	11	...	3,300	GE
	29	...	3,600	EMD
	14	...	3,000	EMD
Tennessee Eastman	1	B-B	1,500	EMD
Texas, Oklahoma & Eastern	1	B-B	3,000	EMD
Union Railroad	4	B-B	1,500	EMD
Union Pacific	45	C-C	3,000	GE
	55	C-C	3,000	EMD
	40	B-B	2,000	EMD
Vermont Railway	1	B-B	2,000	EMD
Various Industrial	72	...	48-790	Plymouth Locomotive

*Electric

**Includes Seaboard Coast Line, Louisville & Nashville, Georgia, Clinchfield and West Point Route

***Purchased by SCL and leased to L&N

1973 LOCOMOTIVE ORDERS-FOREIGN

Purchaser	No.	Type	Horsepower	Builder
Brazil	11	B-B	950	GE
Brazil-Cia Vale do Rio Doce	24	D-D	3,600	EMD
Brazil-Rede Ferroviaria Federal	36	C-C	2,000	EMD
Ceylon Government Railway	14	C-C	1,850/1,700	MLW
Gabon	3	C-C	1,500	GE
Greece	10	C-C	3,900/3,600	MLW
Hong Kong-Kowloon Canton Railways	1	C-C	2,000	EMD
Israel-Israel Railways	2	C-C	2,000	EMD
Jamaica Railway Corp.	6	B-B	1,050/950	MLW
Mexico-Altos Hornos	1	B-B	3,000	EMD
Sonora Baja California Railroad	3	B-B	3,000	EMD
Mexico	45	C-C	1,800	GE
	87	C-C	3,600	GE
National Railways of Mexico	40	C-C	3,000	EMD
Morocco-Moroccan Railways	14	C-C	2,000	EMD
Mozambique	22	C-C	2,000	GE
Peru	5	C-C	1,350/1,200	MLW
	15	C-C	2,600/2,400	MLW
	5	B-B	1,050/950	MLW
Philippines	5	C-C	1,400	GE
Saudi Arabia-Saudi Government Railroad	1	B-B	2,000	EMD
	5	B-B	1,000	EMD
South Africa	6	B-B	950	GE
	20	C-C	2,600	GE
	100	B-B	1,000	GE
South African Railways	100	C-C	1,500	General Motors
	100	C-C	2,600	General Motors
South African Iron & Steel Industrial Corp.	4	B-B	1,000	EMD
Taiwan-Taiwan Railway Administration	20	C-C	1,500	EMD
Venezuela-Orinoco Mining	2	C-C	2,000	EMD
Yugoslavia	4	C-C	1,800	Diesel Division, General Motors, Canada
Zambia	12	C-C	1,500	GE
	6	C-C	2,000	GE

1973 FREIGHT-TRAIN CAR ORDERS-CANADA

Purchaser	No.	Type	Capacity	Builder
Algoma Central	90	Wood Chip	140,000	National Steel
	25	Bulkhead Flat	140,000	National Steel
	100	Hopper	200,000	National Steel
British Columbia Railway	100	Wood Chip	140,000	Hawker Siddeley
	1000	Bulkhead Flat	140,000	Hawker Siddeley
	2	Hopper	.....	National Steel
Canadian General Transit	416	Tank	200,000	GATX
Canadian National	82	Flat	140,000	Hawker Siddeley
	850	Gondola	200,000	Hawker Siddeley
	700	Bulkhead Flat	140,000	Hawker Siddeley
	140	Wood Chip	140,000	Hawker Siddeley
	94	Gondola	200,000	Hawker Siddeley
	266	Container Flat	200,000	Marine Ind.
	135	Flat	140,000	Marine Ind.
	1300	Box	140,000	National Steel
	266	Flat	200,000	National Steel
	500	Box	140,000	National Steel
	3	Dep. Center Flat	350,000	National Steel
	10	Pedestal Flat	140,000	National Steel
	1000	Cov. Hopper	200,000	National Steel
	230	Box	200,000	Berwick
	200	Flat	200,000	Co. Shops
	400	Bulkhead Flat	140,000	Co. Shops
	75	Caboose	.....	Co. Shops
CP Rail	40	Caboose	200,000	Co. Shops
	200*	Bulkhead Flat	200,000	Marine Ind.
	140	Box	140,000	National Steel
	350	Flat	100,000	Marine Ind.
	100	Flat	200,000	Marine Ind.
	100	Box	140,000	Berwick
	50*	Box	140,000	ACF
	15	Pedestal Flat	140,000	Bethlehem
	15	Robot Cars	.....	Co. Shops
	206	Flat	140,000	Marine Ind.
Grand Trunk Western	100	Gondola	200,000	Ortner
	100	Cov. Hopper	200,000	ACF
	54	High Cube Box	200,000	Greenville
	121	Flat	100,000	Whitehead & Kales

Purchaser	No.	Type	Capacity	Builder
	100	Box	140,000	Berwick
Iron Ore Co.	9	Flat	140,000	Marine Ind.
North American Car (Canada)	310	Bulkhead Flat	200,000	Marine Ind.
	40	Bulkhead Flat	200,000	Marine Ind.
Ontario Northland	40	Cov. Hopper	190,000	National Steel
Procor Limited	20	Bulkhead Flat	200,000	Marine Ind.
	160	Bulkhead Flat	200,000	Marine Ind.
	300	Cov. Hopper	200,000	FMC
	143	Cov. Hopper	200,000	Bethlehem
Quebec Cartier Mining Co.	2	Gondola	140,000	Marine Ind.
Quebec North Shore & Labrador	8*	Box	100,000	National Steel
	9*	Flat	140,000	National Steel
	9*	Cov. Hopper	200,000	North American
Rayonier Quebec, Inc.	80	Bulkhead Flat	200,000	Marine Ind.
Steel Company of Canada.	30	Gondola	140,000	Marine Ind.
Various	750	Bulkhead Flat	140,000	Hawker Siddeley
	225	Coal	200,000	Hawker Siddeley
	764	Tank	.....	Hawker Siddeley

*Leased

1973 LOCOMOTIVE ORDERS, CANADIAN DOMESTIC

Purchaser	No.	Type	Horsepower	Builder
Algoma Central	3	C-C	3,000	Diesel Division, General Motors, Canada
British Columbia Railway	8	C-C	3,000	MLW
	4	B-B	2,000	MLW
Canadian National	91	...	3,000	Diesel Division, General Motors, Canada
	30	...	2,000	
CP Rail	10	C-C	3,000	Diesel Division, General Motors, Canada
	23	C-C	3,000	Diesel Division, General Motors, Canada
Ontario Northland	3	C-C	3,000	Diesel Division, General Motors, Canada
Quebec Cartier Mining Co.	5	C-C	3,900/ 3,600	MLW

1973 FREIGHT-TRAIN CAR ORDERS-FOREIGN

Purchaser	No.	Type	Capacity	Builder
Alcan-Jamaica	2	Cov. Hopper	100,000	Marine Ind.
Mexico-Cementos Anahuac, S.A.	100	Hopper	200,000	Greenville
Mexican Government	60	Caboose	100,000	International
National Railways of Mexico.	600	Gondola	200,000	Berwick
	3000	Box	140,000	Berwick

RAILROAD SIGNALING INSTALLED IN 1973

Railroad	Highway Grade Crossings Protected by: Flashing-light signals	Flashing-light signals & gates	Block Signals & Traffic Control: Road Miles	Switches	Electric Locks	Signals	Train Stops Cab Signals	Safety Detectors	Miscellaneous Signal Units
Alaska	3	–	–	–	–	–	–	–	–
Algoma Central	4	–	–	–	–	–	–	–	–
Atlanta & St. A. Bay	1	–	–	–	–	–	–	–	–
BART	–	–	38	–	–	–	150 ATC	–	76
B&LE	–	–	–	–	–	–	–	4	17
B&M	1	3	21	1	2	8	–	4	70
BN	70	45	87	16	23	105	–	14	–
CN	118	28	153	44	35	152	–	16	170
CP Rail	112	5	15	5	2	12	–	1	79
CNJ	–	1	–	–	–	–	–	–	4
NY & LB	1	3	–	–	–	–	–	–	–
C&O	25	10	–	–	–	–	–	–	–
B&O	10	5	–	–	–	–	–	–	–
C&NW	41	10	–	–	–	–	–	12	3
C&WI	–	–	4	–	–	2	–	–	1
CTA	–	–	8	–	–	–	10 ATS, 6 CS	–	–
Clinchfield	1	–	–	1	1	5	–	–	–
D&H	2	3	–	2	1	–	–	–	2
D&RGW	6	2	–	–	–	–	–	13	29
DT&I	–	1	–	–	–	–	–	1	2
AA	1	1	–	–	–	–	–	–	5
EJ&E	2	–	–	–	–	–	–	2	–
EL	1	6	–	–	–	–	–	–	19
Frisco	17	5	–	–	–	–	–	8	–
GB&W	4	–	–	–	–	–	–	–	–
ICG	39	8	17	2	4	13	–	10	2
KCS.	9	1	107	9	12	71	–	1	–
KCT.	–	–	–	–	–	–	–	–	83
LV	1	2	–	–	–	–	–	–	50
L&N	11	1	14	5	4	21	–	–	18
MEC	7	–	7	–	–	3	–	1	15
MBTA	–	–	–	–	–	–	–	–	36
MTA LI	–	21	6	–	–	–	CS TK CKTS	1	12
NYCTA	–	–	–	–	–	28	32 ATS	–	30
Milwaukee Road	36	5	9	3	1	8	–	–	2
MKT	7	1	–	–	–	–	–	–	–
MP	39	10	41	2	–	25	–	20	–

RAILROAD SIGNALING INSTALLED IN 1973 *(continued)*

Railroad	Highway Grade Crossings Protected by: Flashing-light signals	Flashing-light signals & gates	Block Signals & Traffic Control: Road Miles	Switches	Electric Locks	Signals	Train Stops Cab Signals	Safety Detectors	Miscellaneous Signal Units
C&EI	2	3	46	7	18	43	–	2	1
T&P	15	3	–	–	–	–	–	12	–
Montreal ULTC	–	–	1	–	–	1	1 ATS	1	–
NW	20	8	80	10	19	80	–	6	67
ONL	–	–	–	–	–	–	–	4	–
PC	40	25	24	6	5	11	–	6	88
PATH	–	–	–	–	–	1	1 ATS	–	14
Reading	3	2	2	2	3	9	–	–	10
RF&P	–	2	–	–	–	–	–	–	2
Rock Island	21	6	31	4	9	12	–	2	–
Santa Fe	28	38	271	–	–	–	–	42	3
SCL	69	32	10	6	10	31	–	32	40
Soo Line	15	6	–	–	–	–	–	–	–
Southern	40	15	97	37	84	44	–	160	141
SP	42	148	207	42	24	242	–	138	380
TP&W	1	–	–	–	–	–	–	1	–
TTC	–	–	3	–	–	75	–	–	–
UP	21	14	29	27	21	54	80 CS	12	63
WP	4	12	–	–	–	–	–	3	1
Totals	890	491	1,327	231	278	1,056	280*	529	1,535

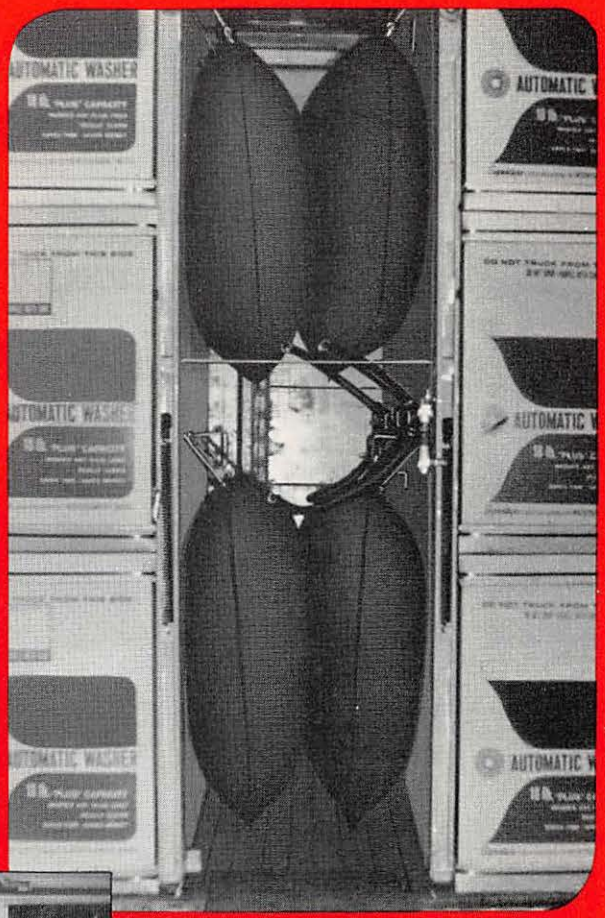
* 150–Automatic Train Control; 44–Automatic Train Stops; 86–Cab Signals.

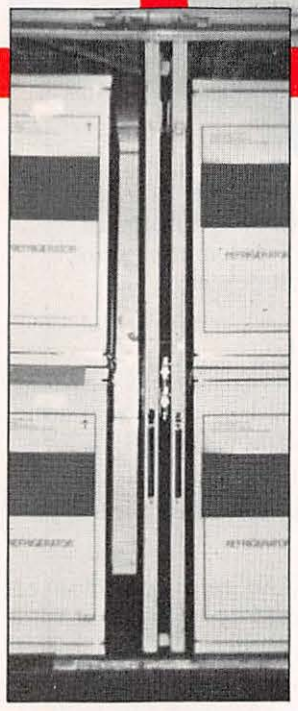
RAILROAD COMMUNICATIONS INSTALLED IN 1973

Railroad	Radio Units	Intercommunications: No. of Systems	Loudspeakers & Telephones	Channelizing Equipment: Carrier Units Terms. & Rep.	Data Sets	Telephone: Exchanges	Stations Available	Computer I/O units	ACI Scanners	Microwave Stations
Algoma Central	16	–	–	–	–	–	–	–	–	–
Atlanta & St. A. Bay	5	–	–	–	–	–	–	–	–	–
BAR	14	–	–	–	–	–	–	–	–	–
BART	176	24	530	34	15	4	100	4	10	–
B&LE	17	–	–	–	17	–	–	21	8	–
BN	441	–	–	320	48	4	–	59	17	62
CN	1,185	8	70	1,129	491	4	800	1,825	13	23
CP Rail	443	–	–	–	–	–	–	–	–	–
CNJ	4	–	–	2	8	–	–	1	–	–
Chessie System	98	–	–	10	76	3	100	126	17	–
C&NW	215	–	–	160	65	2	210	8	5	2
C&WI	–	1	24	–	–	–	–	–	–	–
CTA	2	–	7	6	–	–	12	–	–	–
Cleveland TS	17	–	–	1	–	–	–	–	–	–
Clinchfield	18	1	3	–	5	–	–	–	–	–
D&RGW	35	1	50	43	96	–	–	3	–	–
DT&I	46	2	6	–	–	–	–	3	6	–
AA	4	–	–	–	–	–	–	–	–	–
EJ&E	6	1	3	–	5	–	–	7	3	–
EL	4	–	–	–	–	–	–	–	–	–
Frisco	415	2	10	16	–	–	–	–	–	14
GB&W	4	–	–	–	–	–	–	–	–	–
ICG	132	–	2,000	100	–	3	–	28	–	6
KCS	390	–	–	10	–	–	–	–	9	3
KCT	4	–	–	–	–	–	–	–	–	–
LV	21	–	–	–	–	–	–	–	–	–
L&N	315	7	4	30	6	–	–	9	–	–
MEC	7	–	2	–	–	–	–	–	–	–
MBTA	67	30	750	–	–	–	–	1	1	–
MTA-LI	13	–	–	50	–	–	–	–	2	–
Milwaukee Road	220	1	30	10	2	–	–	15	–	–
MKT	53	–	–	–	–	–	–	5	–	–
MP	25	2	20	–	50	–	10	25	–	–
C&EI	39	–	–	–	8	–	–	4	–	–
T&P	16	–	–	–	18	–	–	9	–	–
Montreal UCTC	6	–	–	–	–	–	–	–	–	–
NW	685	1	13	–	–	–	–	–	8	–
PC	4,791	–	–	–	–	–	–	–	–	–
PATH	9	2	41	–	–	–	–	–	–	–
Reading	19	–	30	–	–	–	–	1	–	–
Rock Island	26	2	2	35	–	–	10	–	–	–
Santa Fe	3	–	–	–	–	1	–	–	10	4
SCL	661	1	10	12	–	1	–	–	–	–
Soo Line	134	–	–	3	18	–	–	–	–	–
Southern	505	5	285	133	12	1	100	–	–	4
SP	675	13	75	117	108	2	259	46	–	34
TP&W	22	–	–	–	–	–	–	–	–	–
TTC	–	6	–	–	–	–	–	–	–	–
UP	484	3	18	156	4	2	600	25	–	7
WP	78	–	–	54	–	–	–	–	–	4
Totals	12,565	113	3,983	2,431	1,053	27	2,201	2,225	109	163

Come on Strong with the Equipco AIR BRACE

An effective, low cost means of equipping new or existing cars for modern palletized loading





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The Equipco Air Brace system provides the lowest-cost method of equipping cars for palletized or unit loading. It can be installed in *any* type of box car, new or existing.

Designed to facilitate unit loading, the Equipco Air Brace compacts the load to protect against damage in transit . . . and keeps pallets aligned for faster unloading. And, when used with relatively uniform loads, it reduces the need for sidewall fillers.

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IMPORTANT: a unique valving arrangement lets you control pressure in upper and lower bags for loads of varying heights.

Spring return speeds unloading. When valve is opened to release air from bags, a special spring return draws bulkheads together . . . and keeps them there. The Air Brace rapidly shrinks from maximum expansion of up to 50″ to unexpanded thickness of 10″.

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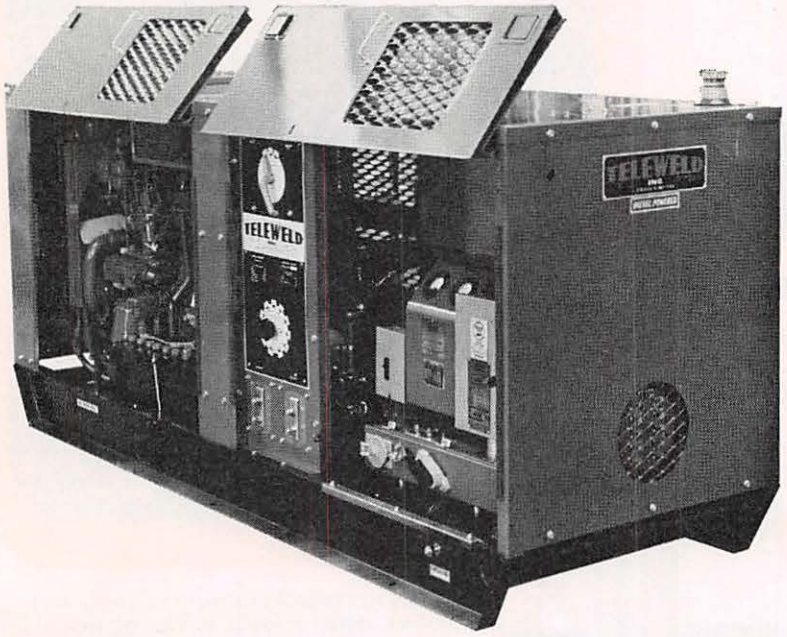

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Circle 39 on Reader Service Card

LETTERS

Energy/environment

Washington, D.C.

To the Editor:

Once again Railway Age has distinguished itself by bringing to the attention of the railroad community and all others the remarkable story of the conscientious and costly efforts of the railroads to be responsive to the environmental and energy problems of our day. We refer, of course, to the entire issue of December 10, 1973 and in particular to pages 29 through 36.

James R. Coxey
Manager, Environmental Studies
Association of American Railroads

The "crosstie crisis"

The Dalles, Ore.

To the Editor:

Concerning your December 10 issue and the article it contains by M.H. Dick on the "crosstie crisis."

Realizing that the article was written from a view of just the South and the hardwood producing areas of the country, I feel that some other points should be made for a better total picture.

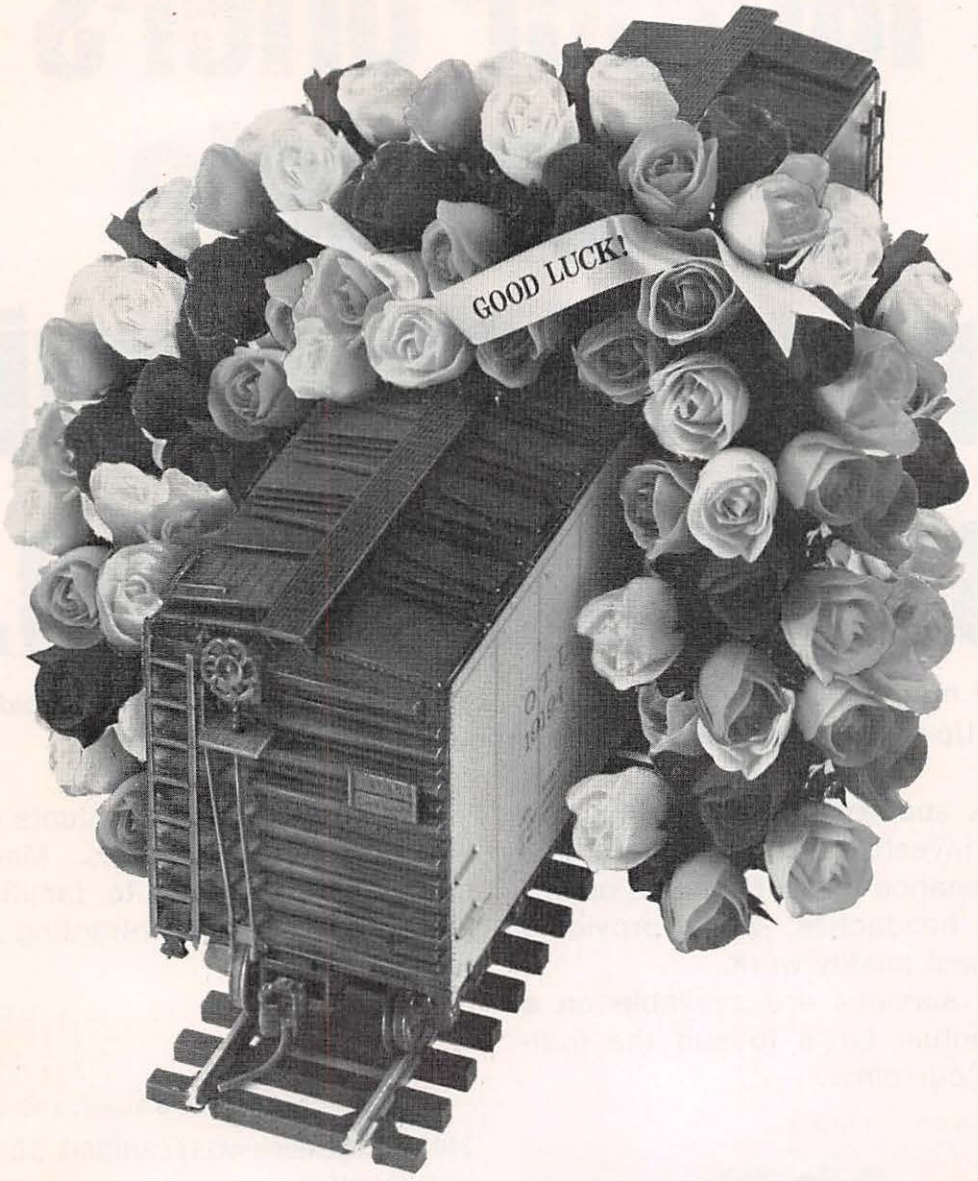
Several railroads have in past years depended on the Rocky Mountain regions and the western half of this country for their crosstie production, or at least the major portion of it. Unless some strong attention by those most concerned is brought to bear, this production is going to dwindle rapidly into no production at all.

One problem is the export of round wood, cants and lumber to other countries. The other is the currently popular fad of "wildernessization." Effort is being made to correct and equalize the export problem. There is currently very little positive action to limit the vast acreages being set aside for permanent "preservation."

To set the problem in perspective, one has to realize the impact of setting aside millions of acres of a renewable resource. In the past three years almost two million acres of timberlands have been removed from over-all harvest plans in Washington and Oregon alone. Add to this the areas of 5,000 acres or more that are presently "unroaded" and that have been locked up for governmental study, and the millions of acres involved boggles the human mind.

The preservationist groups readily admit to plans for seeking wilderness status in the western half of the country for some 52 million acres of timberlands. Impossible? Not so! For example, somewhere between 60 to 90 million

(Continued on page 106)



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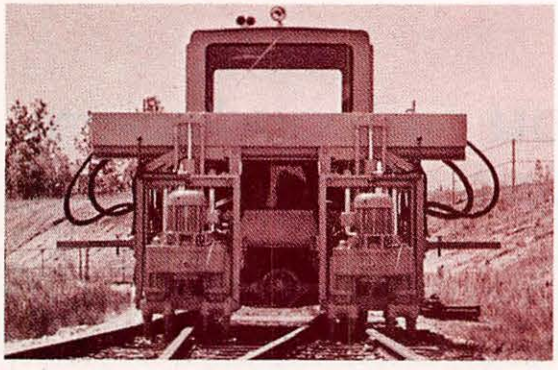
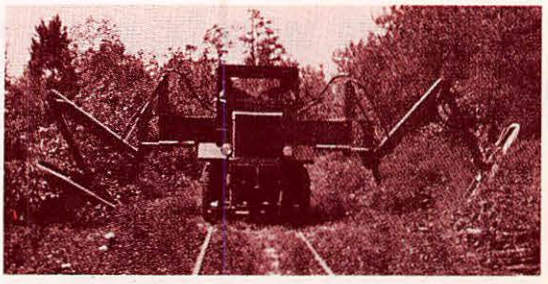
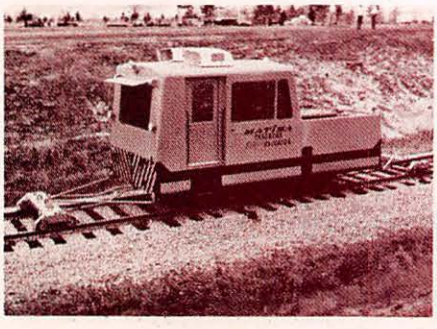


Brush cutting

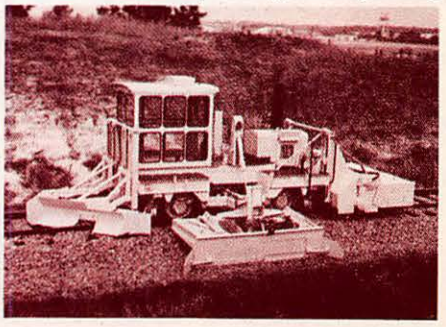


Track recording and analysis



Surfacing and lining

Ballast equalizing and regulating



Circle 41 on Reader Service Card

Market Outlook

CARLOADINGS

Loadings of revenue freight in the week ended Jan. 5, which included the New Year's holiday, totaled 405,210 cars, according to the Association of American Railroads. This was an increase of 47,535 cars, or 13.3%, compared with the previous week, and a decrease of 18,404 cars, or 4.3%, compared with the corresponding week of 1973. Ton-miles generated by carloadings in the week ended Jan. 5 are estimated at 12.7 billion, a decrease of 1.9% below the corresponding week of 1973.

REVENUE FREIGHT CARLOADINGS

Commodity	Jan. 5 week	Dec. 29 week
Grain	23,547	23,289
Farm products	12,183	10,513
Metallic ores	24,684	24,683
Coal	74,629	60,122
Crushed stone, gravel & sand	17,184	14,533
Nonmetallic minerals	12,139	11,892
Grain mill products	18,190	15,964
Food and kindred products	19,215	17,288
Primary forest products	17,113	13,533
Lumber & wood products (except furniture)	10,401	9,188
Pulp, paper & allied products	19,469	14,327
Chemicals & allied products	23,839	20,896
Petroleum products	8,132	7,552
Stone, clay & glass products	15,790	13,787
Coke	8,537	7,468
Metals & products	23,990	20,379
Motor vehicles & equipment	11,348	11,529
Waste & scrap materials	11,611	9,893
Forwarder & shipper assn. traffic	7,565	7,021
All other carloads	45,350	43,343
LCL traffic	294	349
Total cars loaded	**405,210**	**357,489**
Cumulative Total, 52 weeks	1973	1972
	27,321,918	26,104,642
Estimated revenue ton-miles (billions) 52 weeks	846.8	776.7

PIGGYBACK LOADINGS

U.S. piggyback loadings for the week ended Dec. 29, 1973, totaled 22,986 cars (6.3% above the corresponding week of 1972) and 40,134 trailers or containers (up 8.6% from 1972). Both weeks included the Christmas holiday.

IN CANADA

10 days ending	Tons of Revenue Freight	Cumulative Totals
Dec. 31, 1973	3,806,008	238,900,790
Dec. 31, 1972	4,668,963	212,387,318

- *Burma Railways Corp.*—Has requested bids (deadlines are in parentheses) for the following equipment: 61 passenger cars—underframe and trucks to be complete, with coach body in knockdown condition (Feb. 25); 55 sugar cane cars—underframe and trucks to be complete, body in knockdown condition (Mar. 4); 50 timber-hauling cars complete with chains (Mar. 11); 5 petroleum tank cars—trucks and underframes completely assembled and tank in knockdown condition.

- *CP Rail.*—Ordered 450 flat cars from Marine Industries at a total cost of $9.3 million. Included are 350 54-ft, 4-in. single-hitch piggyback cars, for delivery in June, July and August; and 100 65-ft, 100-ton-capacity standard cars, for delivery in September.

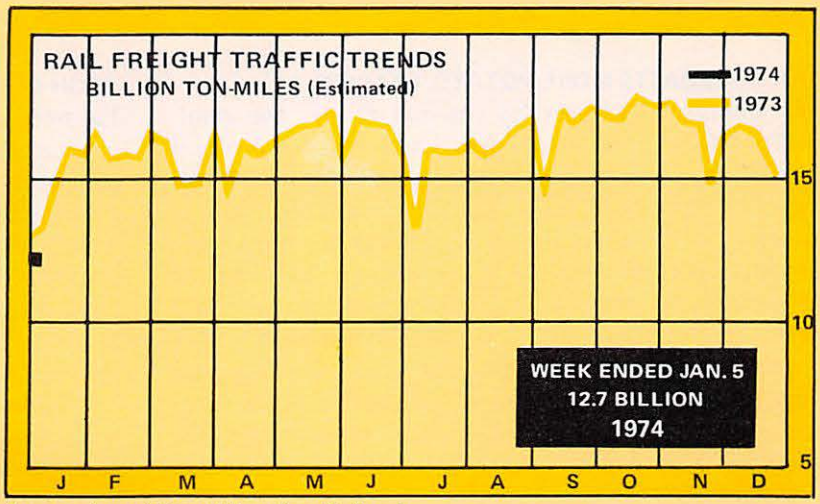
- *Chessie System.*—Will construct 2,000 100-ton open-top hopper cars for coal service at a cost of $33 million.

- *Green Bay & Western.*—Ordered 30 50-ft box cars from Pullman-Standard (to be delivered in October), and leased 295 rebuilt 50-ft box cars for delivery during the first half of 1974.

- *Olin Corp.*—Will acquire 344 tank cars under long-term lease with Union Tank Car Co. Delivery is scheduled for second-half 1974. Of the cars, 38 will have 14,000-gallon capacity; 163 will have 16,000-gallon capacity; and 143 will have 17,000-gallon capacity. They will be used for shipments of chlorine, caustic soda and sulphuric acid.

- *St. Louis Southwestern.*—Ordered 1,500 cars for more than $37 million, a part of Southern Pacific's over-all plan to acquire 6,157 new cars this year costing about $128 million. Pacific Car & Foundry will construct 1,100 box cars with final deliveries scheduled for fall. FMC's Marine & Rail Equipment Division will produce 400 box cars with deliveries in April and May.

- *Trailer Train.*—Acquisition and financing of 1,500 intermodal flat cars expected to cost more than $35 million has been approved by TTX directors. Carbuilder assignments are incomplete.



Source: Association of American Railroads

Moving Freight

TRAILER TRAIN OKAYS BOX-CAR POOL PLAN

As expected, Trailer Train, whose fleet of 68,000 flat cars makes it the nation's largest non-railroad owner of freight cars, has elected to enter the box-car field. Formation of a new corporation that would acquire and operate a nation-wide pool of box cars has been authorized by the TTX board of directors. Initially, the new pool will be composed of 10,000 50-ft wide-door box cars, with a total value of about $180 million. In a year-opening statement, TTX President Curtis D. Buford said that if early ICC approval of the pool plan is granted, the box cars (with reporting marks reported to be A-BOX) could begin appearing in the TTX fleet before the end of 1974. The pool plan has already received the go-ahead from the AAR.

ACF BUILDING A NEW REPAIR FACILITY

ACF is building a new car-repair facility at Bude, Miss., with first phase completion scheduled for second-half 1974. J.D. Brinkerhoff, vice president and general manager of ACF's Shippers Car Line Division, said the new shop is designed primarily to provide maintenance and service for the ACF fleet of tank and covered hopper cars.

SP UNIT TRAINS WILL HAUL UTAH CRUDE

Southern Pacific will soon be operating four unit trains of tank cars to move crude oil from Utah to the refinery of Standard Oil of California at Richmond, Cal. Utah refiners are incapable of processing all the increased crude output in the region and there is no pipeline from there to the California refinery. A 70-car train handling 37,000 barrels of crude and arriving every other day will supply about 10% of the refinery's feedstock. The movement is to continue indefinitely and, says California Standard, constitutes its largest rail movement of oil in recent years.

BAR FORECASTS MORE POTATO TRAFFIC

The energy efficiency of the rail mode, the availability of a large fleet of specialized cars and Federal legislation to strengthen Northeast railroads "will see the railroads back in the long-haul potato business," predicted Walter E. Travis, executive vice president of the Bangor & Aroostook, at a recent Maine agricultural meeting. The trend has been the other way as BAR moved 75% of Maine's crop only a decade ago and just 16% last year. Travis noted that trucking is much more fuel-intensive than rail and said that a recent 15% rate increase by private truckers is probably only the beginning of a steep cost spiral for their customers.

NASAB HAS FUEL-CRISIS COMMITTEE

A special committee to coordinate shipper-carrier response to the current fuel crisis has been created by the National Association of Shippers' Advisory Boards. NASAB's Committee on Energy was formed to get "grass roots shipper cooperation in order to conserve and more efficiently utilize national fuel resources." NASAB Vice President John P. Loughnane, who heads the new group, noted that "we are particularly concerned about fuel allocations to the railroads which are a low user of fuel in relation to the transportation job they do."

UPTURN IN COAL MINING SEEN BY NW

Coal production in fields served by Norfolk & Western is expected to be up by 5 million tons this year and NW expects to originate 67 million tons. Fifteen mines with an annual capacity of 3.4 million tons were opened or reactivated during the final quarter of 1973. In the first quarter this year 12 more mines are expected to begin producing 2.2 million additional tons. The price of steam coal has about tripled in the past year, making it possible for smaller operators to acquire equipment specified in the mine safety law and allowing them to resume production.

CANADA LOOKS TO MORE RAIL CONTAINERS

Container movement within Canada could reach 900,000 annually by 1980, almost 50 times the present level, reports a recent study of the Canadian Transport Commission. Because containers offer no economies, compared with conventional trucking, for distances under 250 miles and railways can carry them more cheaply for longer distances, CTC expects that most of the container growth will be on railroads. Another advantage is the rail-oriented container terminals in Montreal, Toronto, Winnipeg, Edmonton and Calgary.

HIGH-CUBE HOPPERS IN GRAIN SERVICE

Lauhoff Grain Co., has put in service the biggest covered hoppers used in the grain industry. The four-compartment, 5,820-cubic-foot Maxi-flo cars are operated under a full-service, long-term lease with Pullman Transport Leasing Co. Lauhoff plans to ship such low-density food products as grits, meal, hominy feed and certain soybean derivatives in the new PTLX cars. While normal grain cars are in the 4,400 to 4,750 cubic foot range, the cars used by Lauhoff are capable of handling bulk products with densities ranging up to 40 pounds per cubic foot. Their linings and 20-inch circular hatches meet the requirements for edible products.

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LETTERS

(Continued from page 100)

acres of Alaska is *presently* being approved for wilderness status by our legislators.

The essence of the problem is this: The western and northern railroads are going to have to go into other markets for their crossties. Importation does not seem to be the answer. Where do you think they are going to get their ties?

Glenn D. Summers
Supt. Timber Treating Plants
Union Pacific

[The article in the December 10 issue was intended to apply to the entire country, but Railway Age is glad to have this letter from Mr. Summers bringing out facets of the problem that apply particularly to the western and northwestern parts of the country. Editor.]

Spark-reducing brake shoes

Mahwah, N.J.

To the Editor:

Your informative article on railroad environmental programs in the December 10 Railway Age is fine regarding brake shoes, as far as it goes, but you have overlooked one very important development. I quote from page 31 of the article:

"Thermodynamically, the cast iron brake shoe is probably the best performer of all the types of brake shoes marketed to the railroads. But, it sparks."

Your readers should be aware of a new metal shoe, first field tested in early 1970, that reduces sparking to a negligible factor. Known as the high-phosphorus type, it is now conditionally approved by the AAR and accounts for more than 50% of metal shoes now purchased by railroads. It is available to all railroads from all suppliers of metal brake shoes.

The spark suppression is readily demonstrable on a brake dynamometer or in drag braking. Spark suppression is a major reason for its utilization by most western roads today. The shoe also provides better braking performance and longer wear, but we know that some roads use it almost solely for reasons of fire prevention.

Sam R. Watkins
Vice President-Sales
Abex Corporation
Railroad Products Group

More on track-measuring cars

Sept-Iles, Que.

To the Editor:

Your article in the November 12, 1973, issue of Railway Age on Santa Fe's new track geometry car is extremely interesting.

In the box on page 30 under the caption "How other roads use track cars," you list the roads presently owning track-measuring cars. However, you do not mention either CP Rail or the QNS&L as owning and operating such cars when, in fact, both roads have their own track geometry cars, similar to that on the Canadian National.

In 1968 and each succeeding year, until we received our own track geometry car in March last year, QNS&L used the services of the Tamper (Matisa) Trackfax car for at least one complete run each year. The information received from the track geometry cars has proved invaluable in determining and establishing both critical conditions and priorities for track maintenance.

T.C. MacKenzie
Engineer, Maintenance of Way
Quebec North Shore & Labrador

[W.E. Switzer, chief engineer of the QNS&L and the Iron Ore Company of Canada, has also written Railway Age pointing out that this road has its own track inspection car. He adds: "The car is taken over the line every two weeks, and the readout of the car, experience has shown, gives us valuable maintenance information." Editor.]

COST ANALYST

Progressive railroad company with headquarters San Francisco, California, seeking experienced cost analyst for responsible position. Must have management potential and knowledge of rail costing techniques including Rail Form A formula. Highway and water costing knowledge desirable. Degree required. Promotional potential-liberal benefits. Salary range $18,000 to $22,000 annually. Starting salary commensurate with educational background and experience. Send resume and salary requirements to **Box 195, RAILWAY AGE, 350 Broadway, New York, N.Y. 10013.**

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Viewpoint

Mr. Menk has a capital idea

"There is an upbeat to the mood around the railroad industry as we begin 1974. . . .The country realizes how it needs us even more today than it did yesterday."

—Burlington Northern Chairman Louis W. Menk

Lou Menk is proud of the industry he works for. He thinks it's great. He is especially proud of the Burlington Northern. He thinks it's the greatest.

"We're building one of the best railroads in the United States—and in railroading that means the world—at Burlington Northern," he told a meeting of grain shippers in Minneapolis. One reason for this, he said, is that BN has invested $650 million in new rolling stock and improved facilities since merger four years ago.

At this point, there must have been at least a handful in Mr. Menk's audience who were wondering why, with the railroad industry in such splendid shape, it really needed anything more than a license to keep rolling along the way it has been for years.

Mr. Menk quickly disabused his listeners of any idea that the picture was an entirely rosy one. The railroads' great accomplishments, he said, have come about thus far "despite the unbelievably bad systems of regulations under which our industry operates."

Then he posed two questions:

"How long do you suppose that the investment community is going to lend capital to an industry or company that earns less than 3% a year after taxes?

"How long do you suppose an industry or a company with earnings of less than 3% can afford to borrow money for new equipment at 8½% or 9%?"

Mr. Menk observed that during the last 25 years, while various governments were pumping $350 billion into highways, waterways and airways, the railroads were spending more than $42 billion of private capital on maintenance-of-way and improvements to their rights of way—on which they pay taxes—and another $21 billion for cars and locomotives.

It was a lot—but it was not enough. While railroad capital spending in the last 10 years has averaged $1.4 billion a year, it must rise in the next 10 years to $3.6 billion "if rail carriers are to give their shippers and the public the service they need."

THE HEART OF THE MATTER

Railroads can attract that kind of private investment capital only if they can protect it with adequate revenues and earnings, said BN's chief. And then he got to the heart of the matter.

"This puts the question of what kind of rail service America will have in the future squarely up to two sets of people: One, those who pay the freight—the shippers and the public—and, two, those in Washington and the State capitals who set the rules and regulations under which we operate.

"Our shippers and the public and the policy makers must have the foresight in the months to come to recognize that the real test of a transportation system is found *first* in the character and adequacy of the service performed and *second* in the level of rates."

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